

CALIBRATION OF THE PCB
WATER QUALITY MODEL FOR THE DELAWARE ESTUARY
FOR PENTA-PCBs AND CARBON

APPENDIX E
MODEL CALIBRATION RESULTS:
PLOTS OF TEMPORAL AND CUMULATIVE FREQUENCY DISTRIBUTIONS

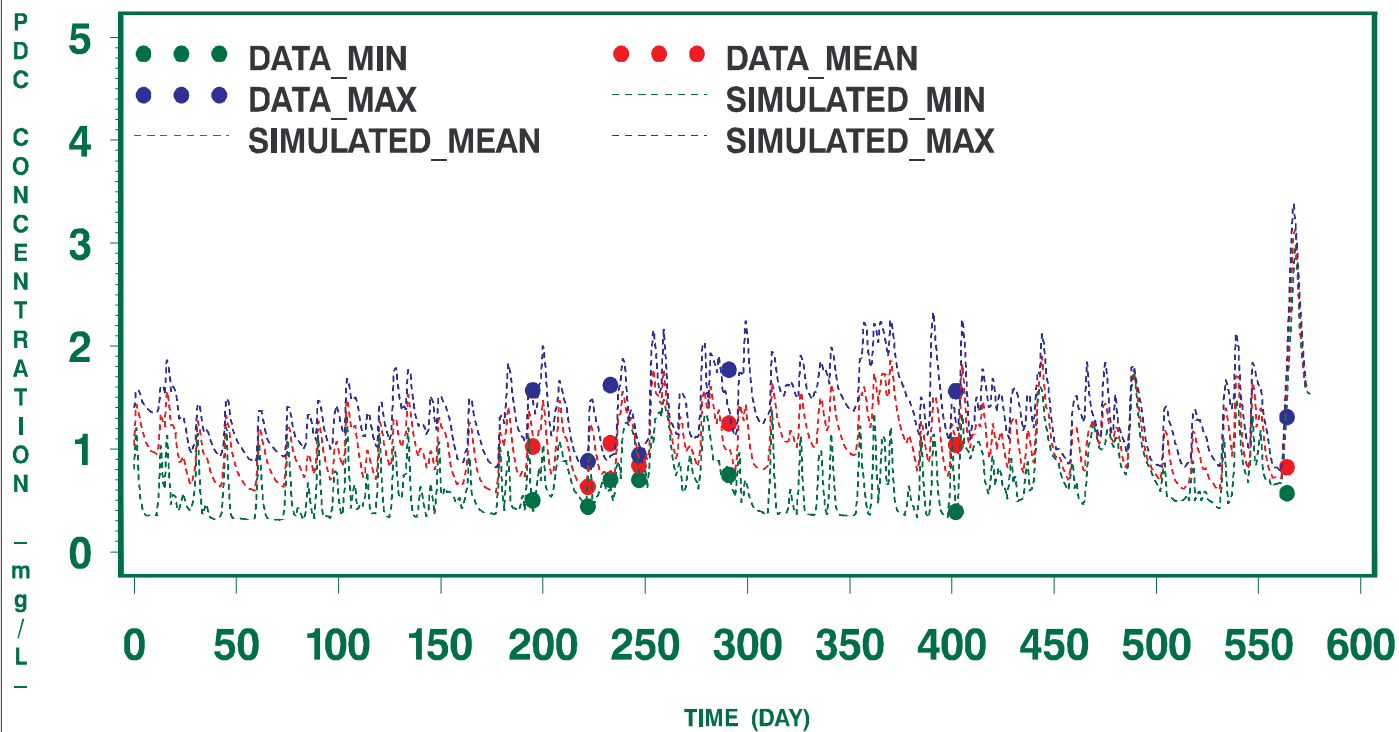
SHORT TERM SIMULATION RESULTS FOR DELAWARE RIVER ESTUARY

CFD AND TEMPORAL PLOTS OF WATER COLUMN BIC, PDC, AND PENTA PCBS

- DATE OF FILE CREATED: 01AUG03 14:39; FILE NUMBER CAL_CARBOON_0100
- VR=RESUSPENSION RATE BETWEEN WATER COLUMN AND SURFACE SEDIMENT
- CONDITIONS1: VR= 0.10 CM/YR UPPER PART OF ZONE 2; 0.25 CM/YR LOWER PART OF ZONE 2
- CONDITIONS2: VR= 0.75 CM/YR ZONE 3; 0.50 CM/YR ZONE 4; 1.25 CM/YR ZONE 5
- CONDITIONS3: VR= 1.50 CM/YR MOST OF ZONE 6; 0.10 CM/YR ZONE 6 AT BOUNDARY
- PURPOSE: TEMPORAL EXAMINATIONS OF WATER COLUMN BIC, PDC, AND PENTA PCBS ON DATES
- OF AMBIENT SURVEYS AT SELECTED STATIONS IN EACH ZONE
- A LIST OF SURVEY DATES: 3-15-02, 4-11-02, 4-22-02, 5-06-02, 6-19-02
- A LIST OF SURVEY DATES: 8-05-02, 8-19-02, 9-03-02, 9-23-02, 10-08-02, 11-21-02
- A LIST OF SURVEY DATES: 3-10-03, 3-19-03
- SEDIMENT BURIAL TIME STEP: 73 DAYS

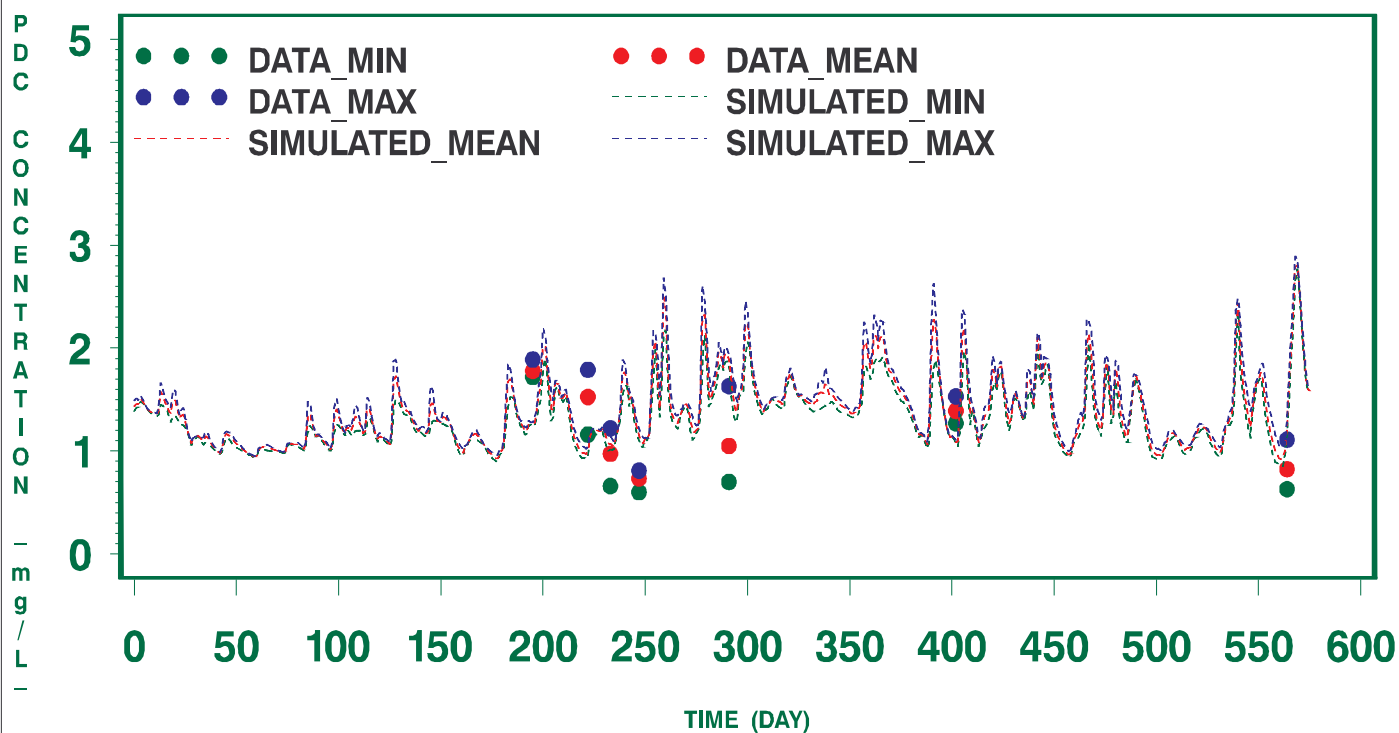
- INORGANIC SOLID: INITIAL CONCENTRATION VARYING BY SEGMENT; NO LOAD ASSIGNED
- BIC=BIOTIC ORGANIC CARBON, PDC=PARTICULATE DETRITAL CARBON
- POC=PARTICULATE ORGANIC CARBON
- CFD=CUMULATIVE FREQUENCY DISTRIBUTION
- DERIVED DATA: BIC=CHLOROPHYL* BIC CARBON TO CHLOROPHYL RATIO; PDC=POC-BIC
- BIC SETTLING 0.1 M/DAY; PDC SETTLING 0.5 M/DAY
- RESULTS FOR PENTA PCBS WERE SOLELY BASED ON CARBON CALIBRATION
- NO REFINMENT ON ANY PCB RELATED CONSTANTS AND COEFFICIENTS WERE PERFORMED

TEMPORAL PLOTS OF WATER COLUMN PDC FOR ZONE 2



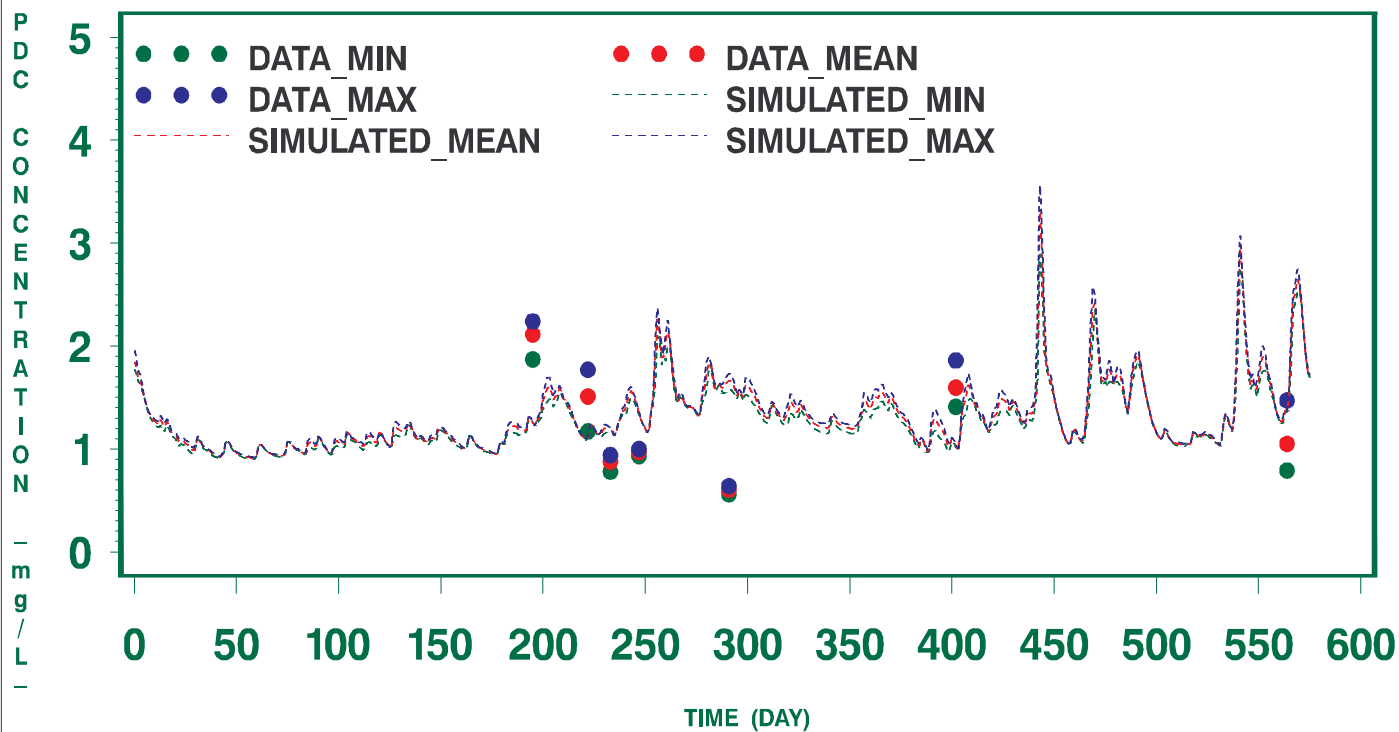
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TEMPORAL PLOTS OF WATER COLUMN PDC FOR ZONE 3



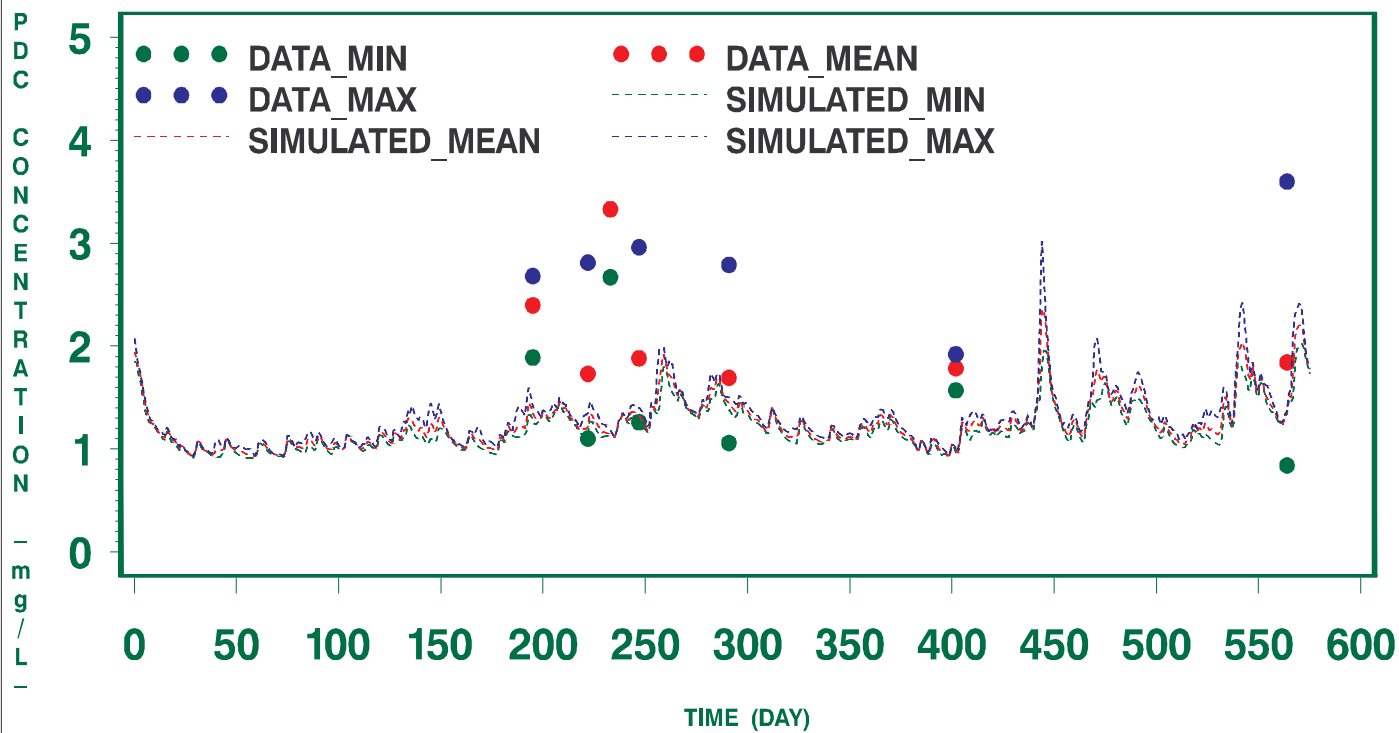
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TEMPORAL PLOTS OF WATER COLUMN PDC FOR ZONE 4



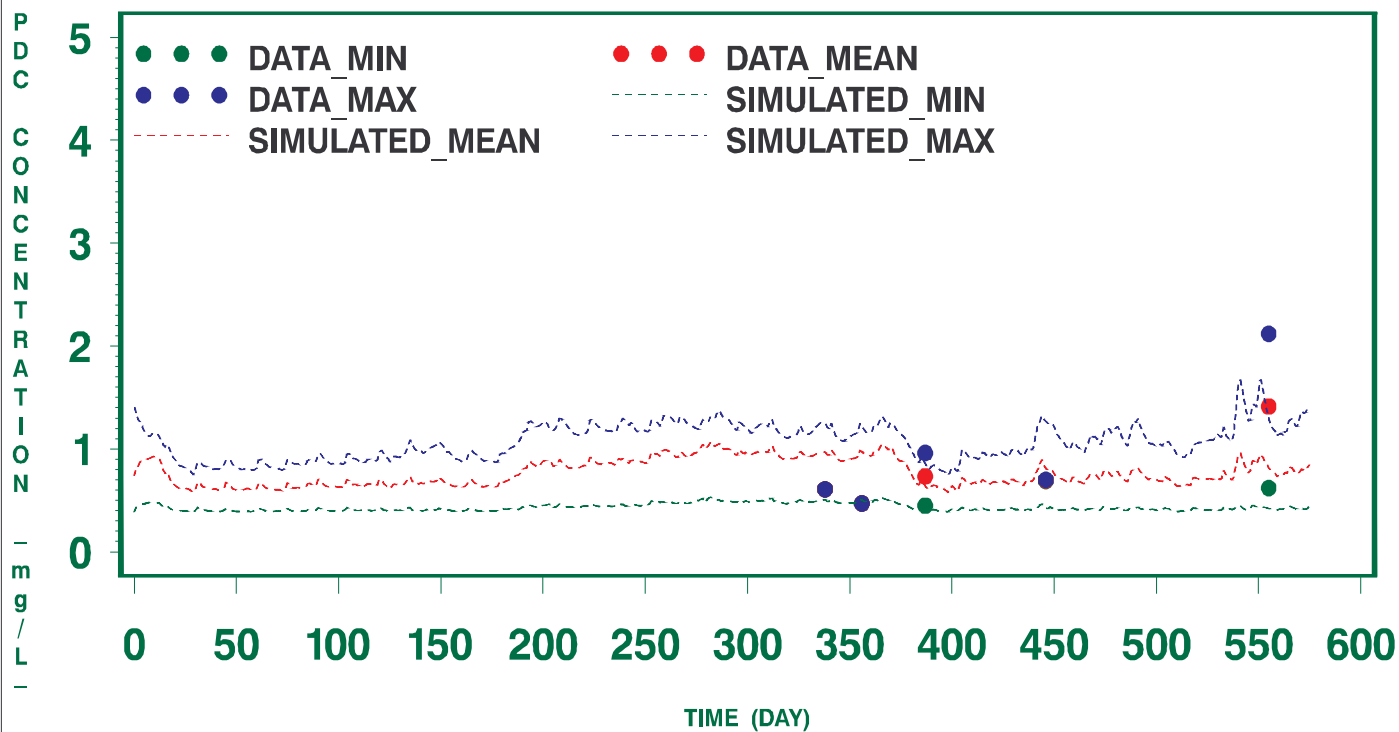
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TEMPORAL PLOTS OF WATER COLUMN PDC FOR ZONE 5



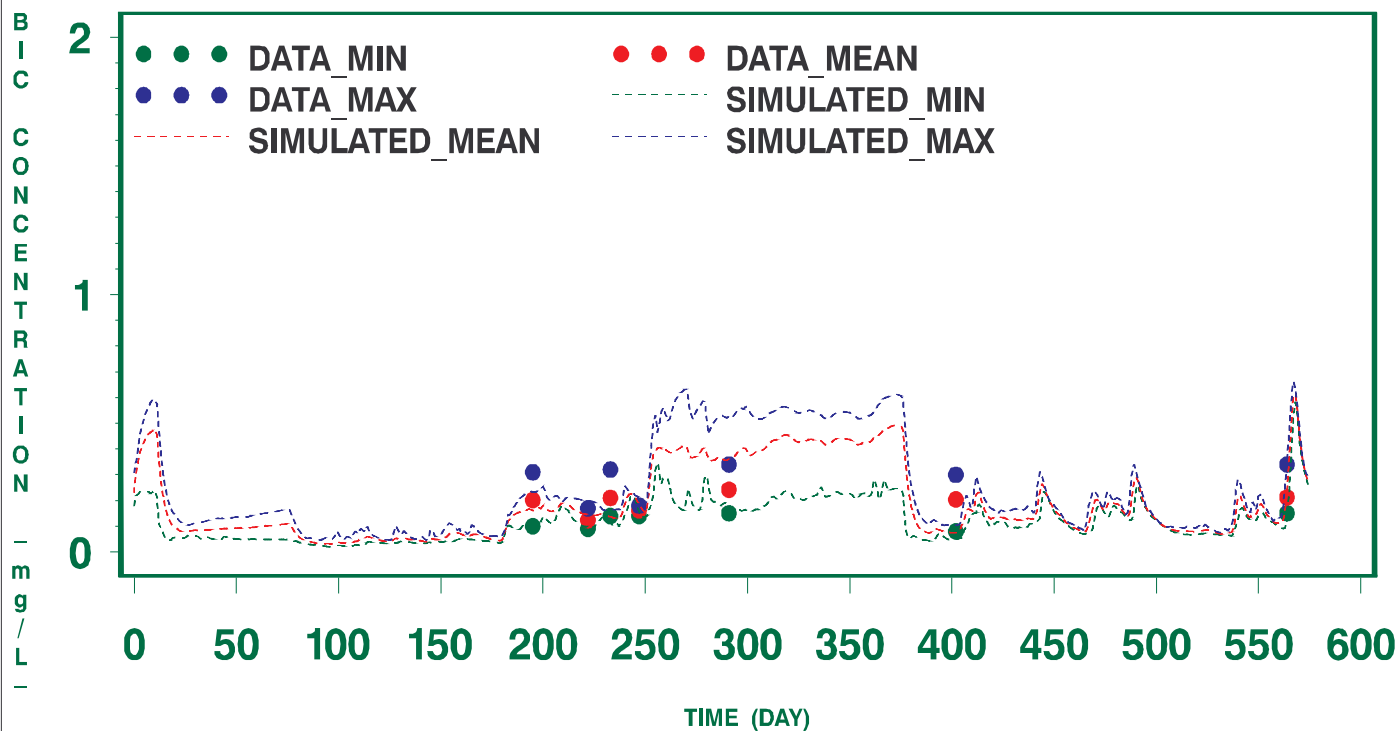
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TEMPORAL PLOTS OF WATER COLUMN PDC FOR ZONE 6



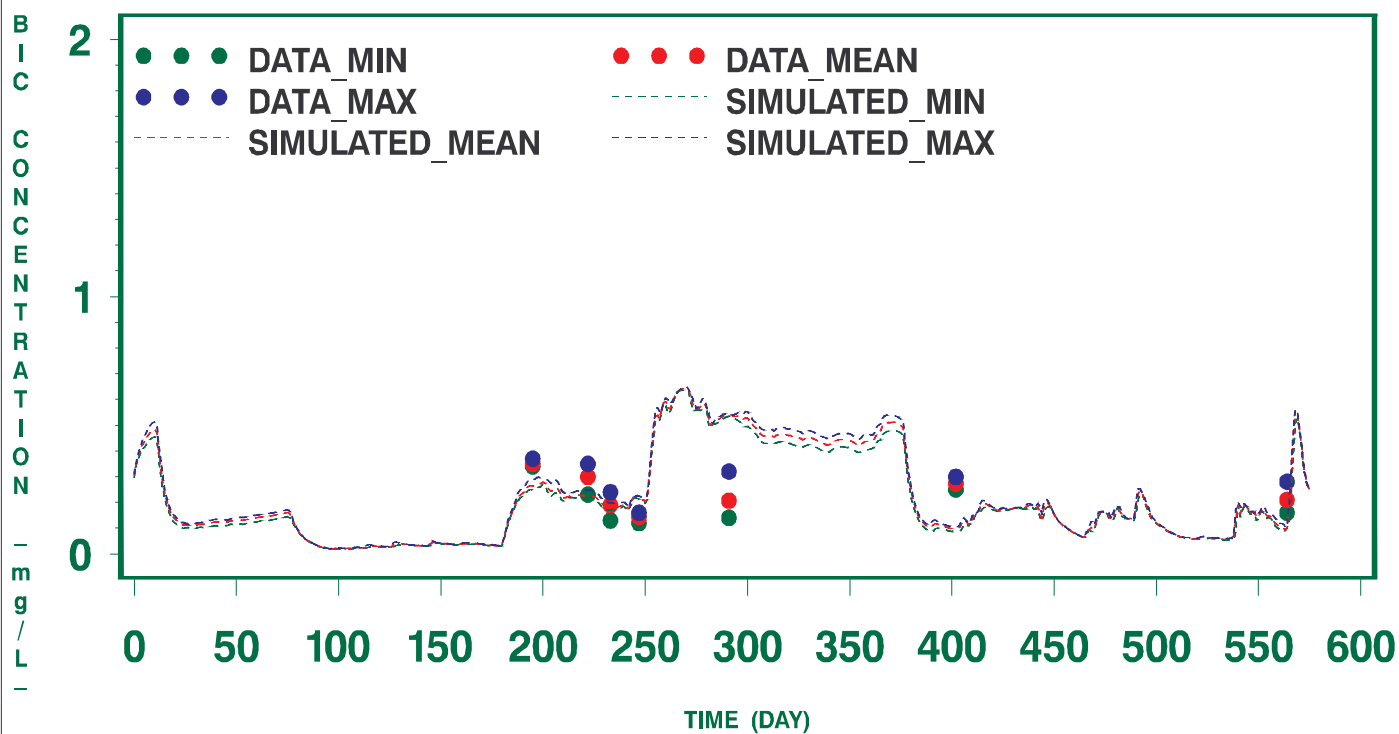
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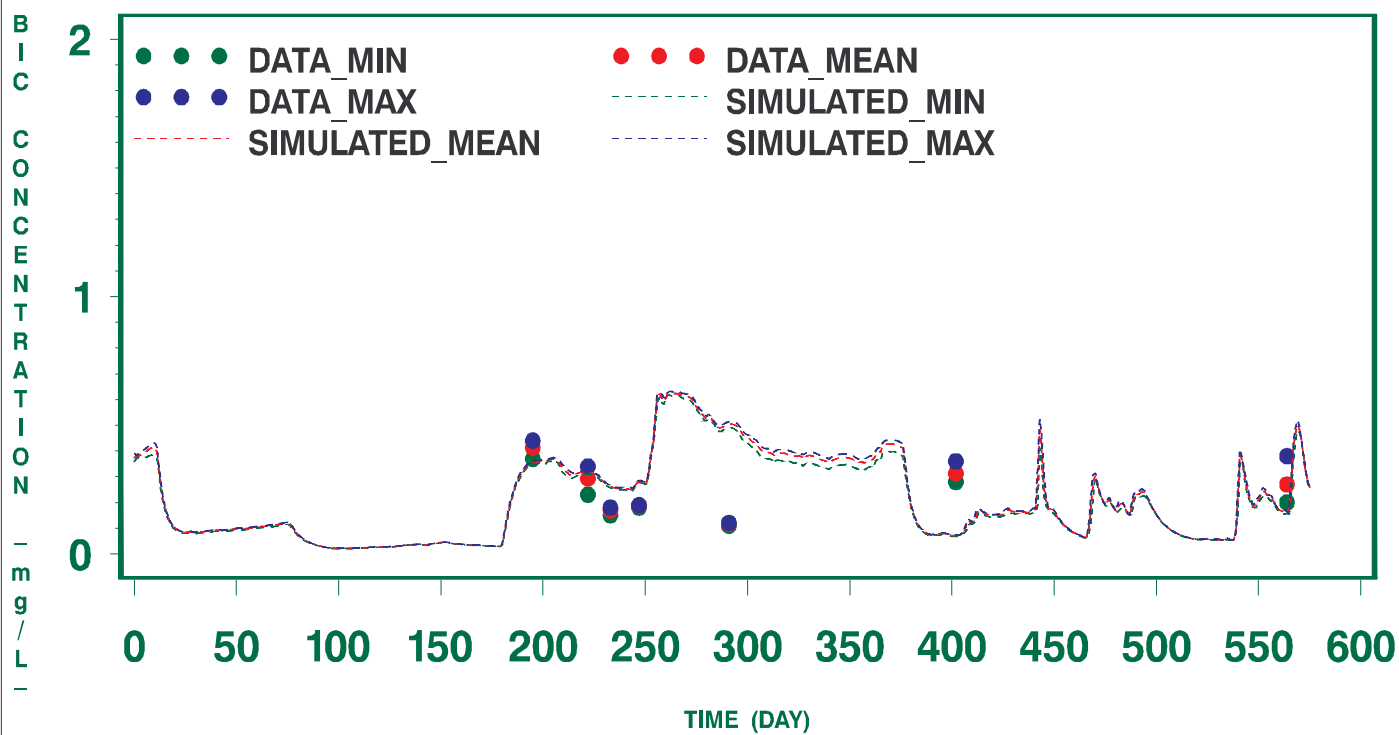
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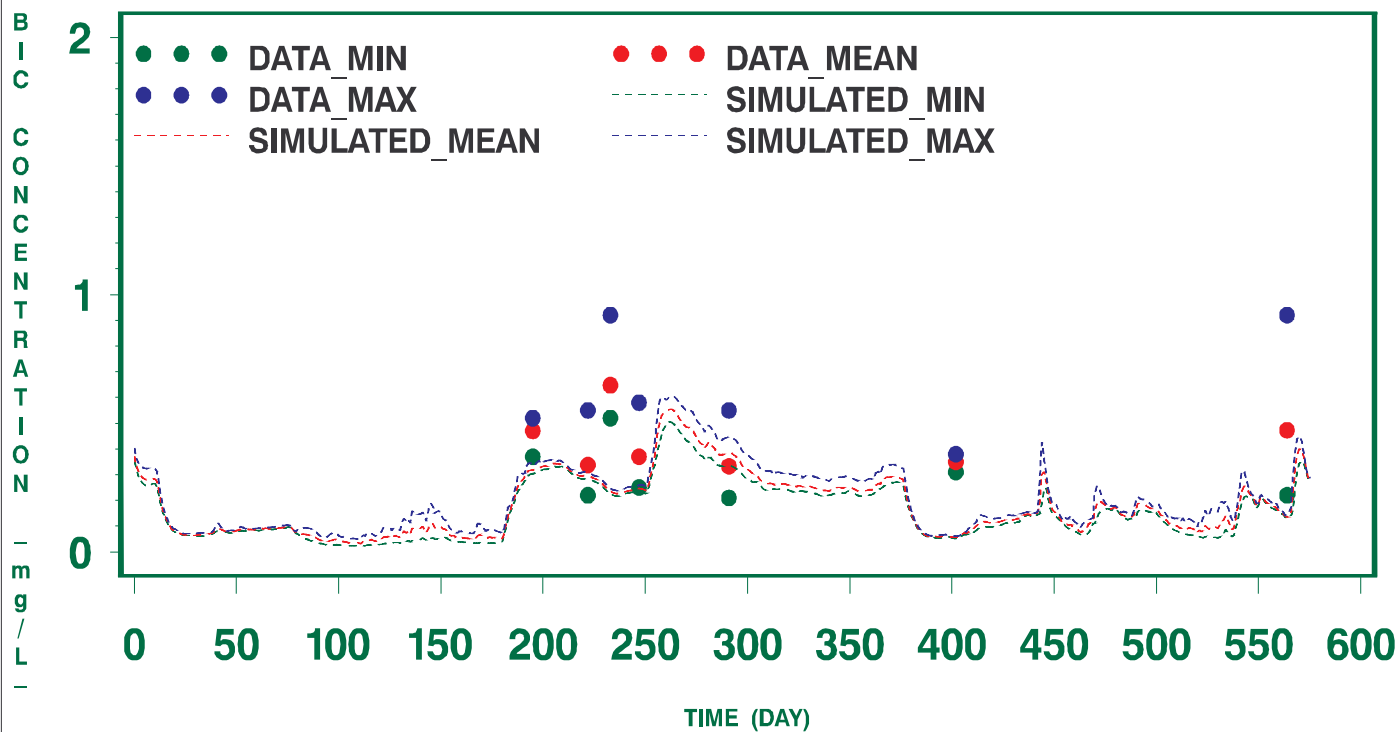
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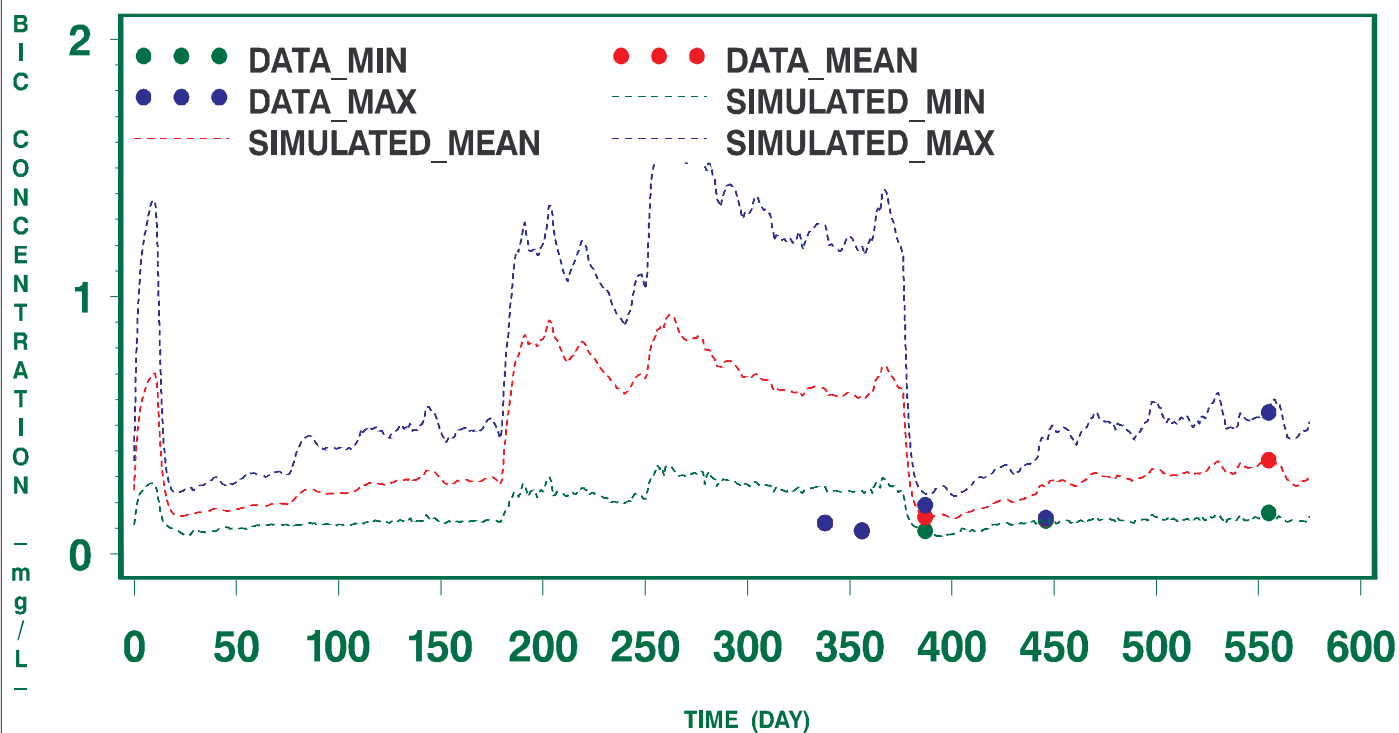
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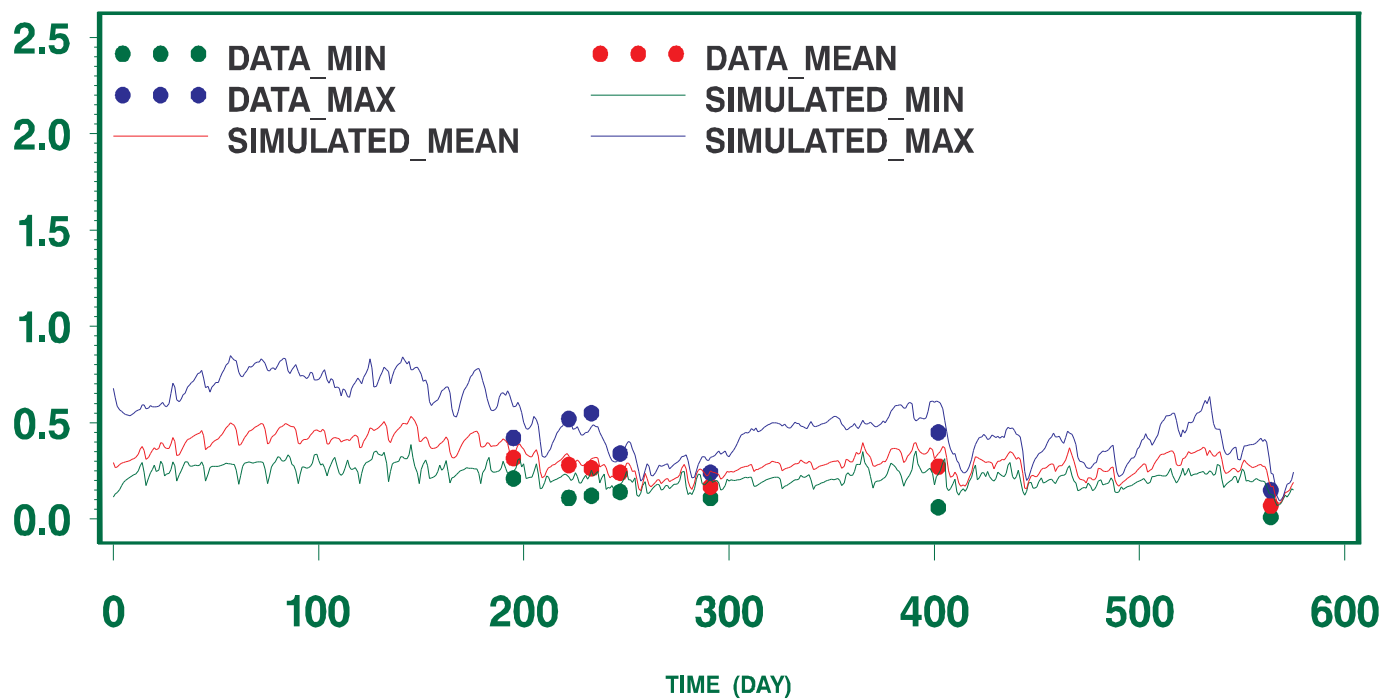
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TEMPORAL PLOTS OF WATER COLUMN BIC FOR ZONE 6



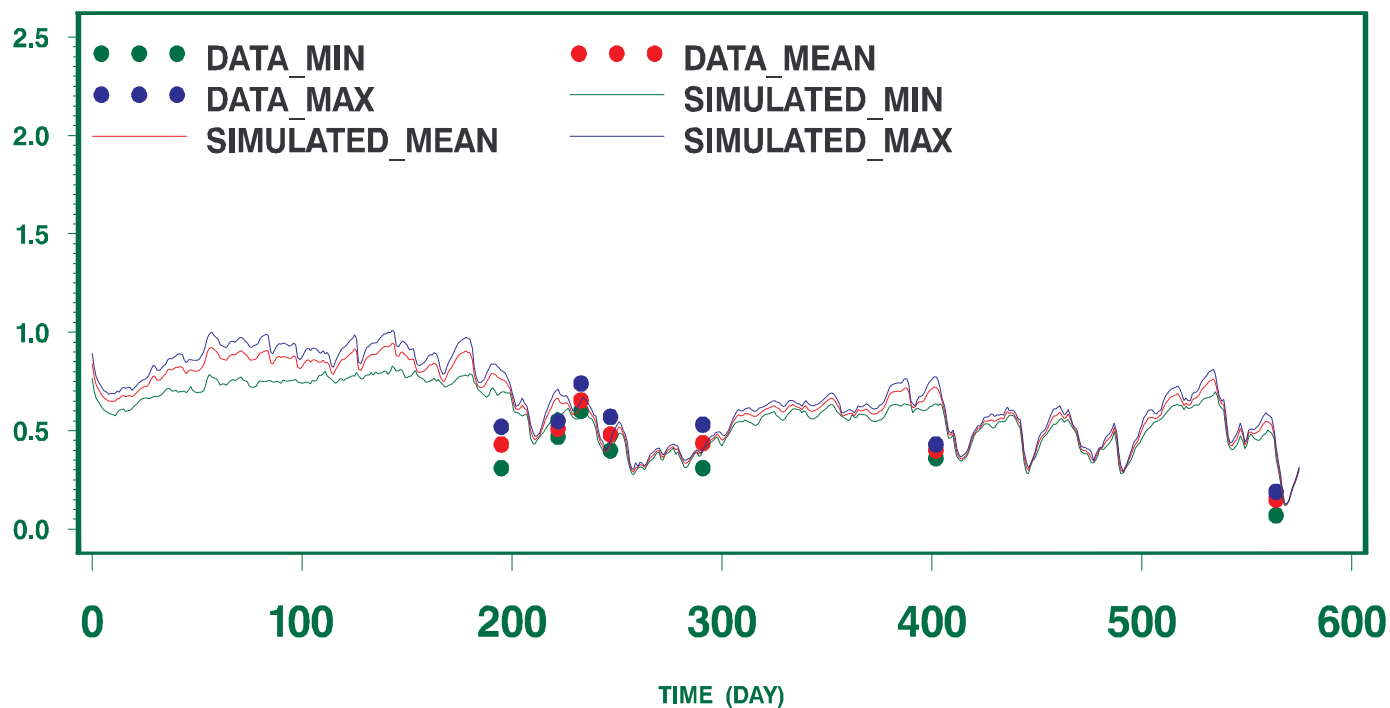
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TEMPORAL PLOTS OF WATER COLUMN R1 FOR ZONE 2



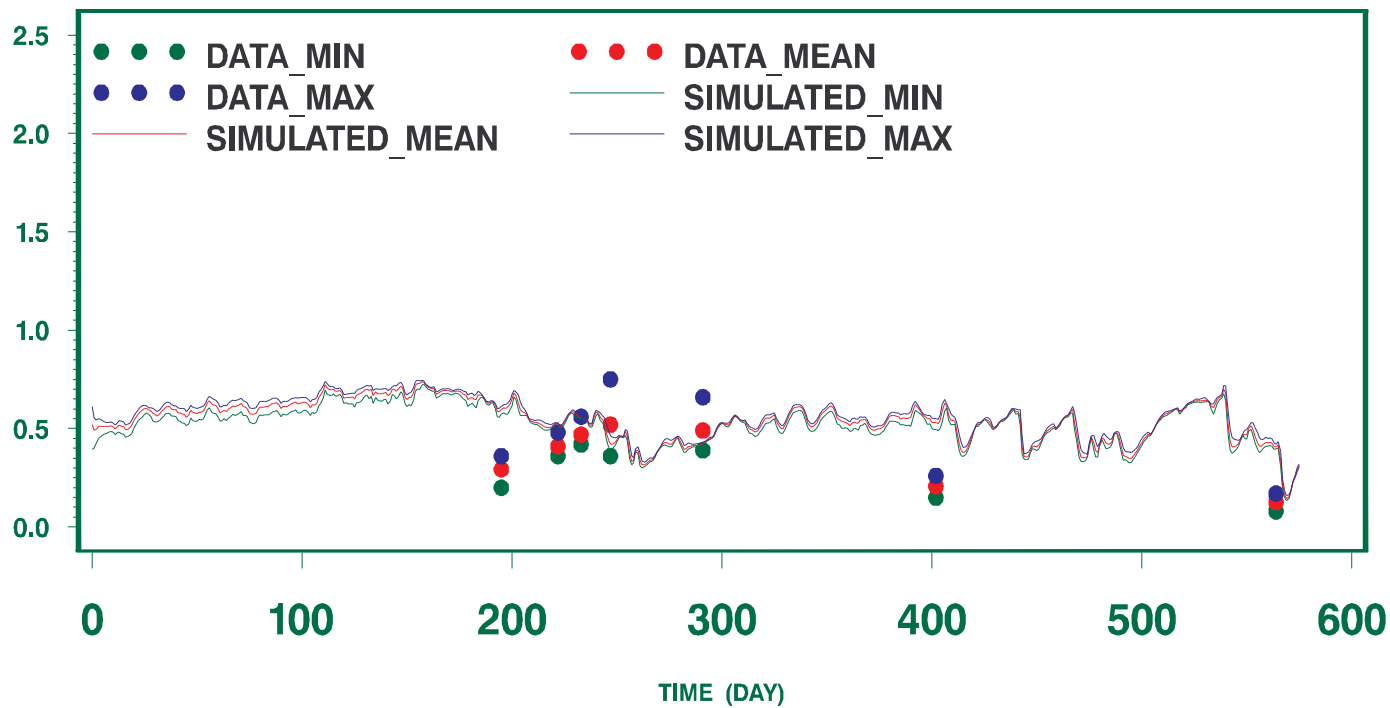
R1=ug PARTICULATE PENTA PCB/g OC
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TEMPORAL PLOTS OF WATER COLUMN R1 FOR ZONE 3



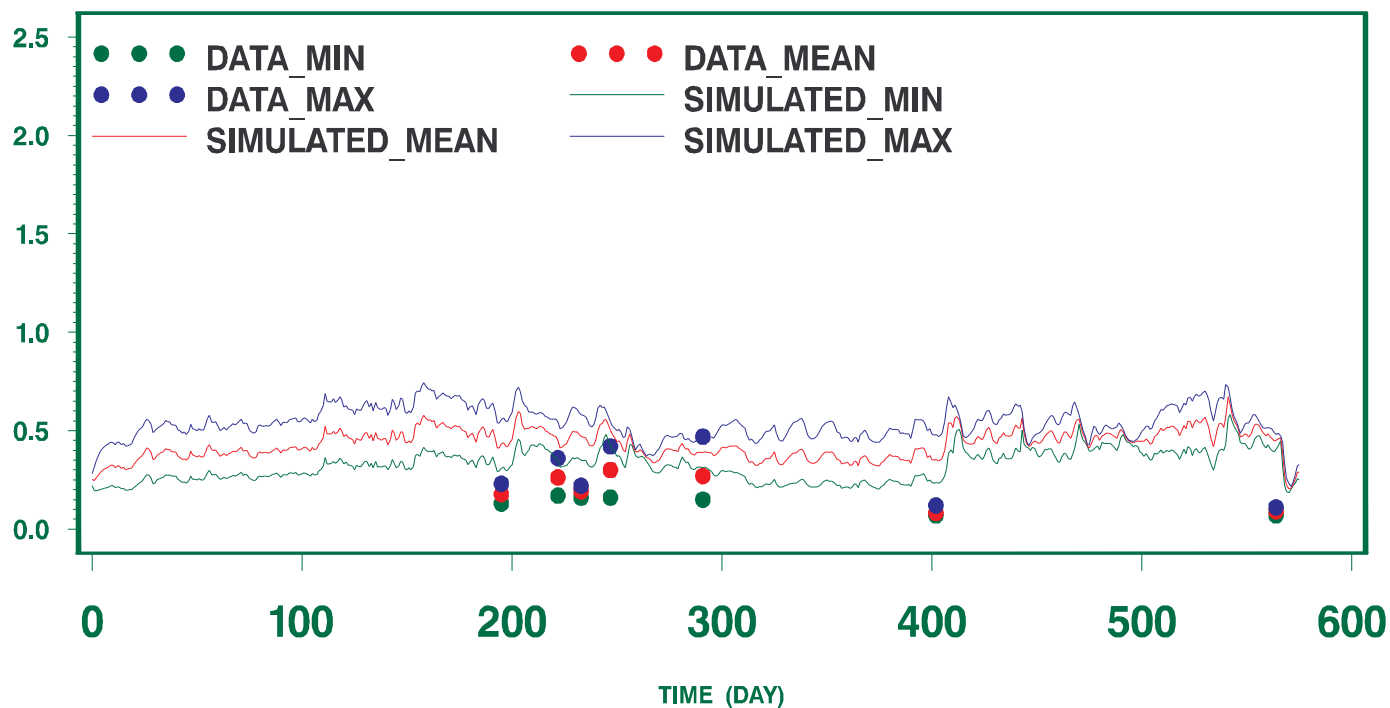
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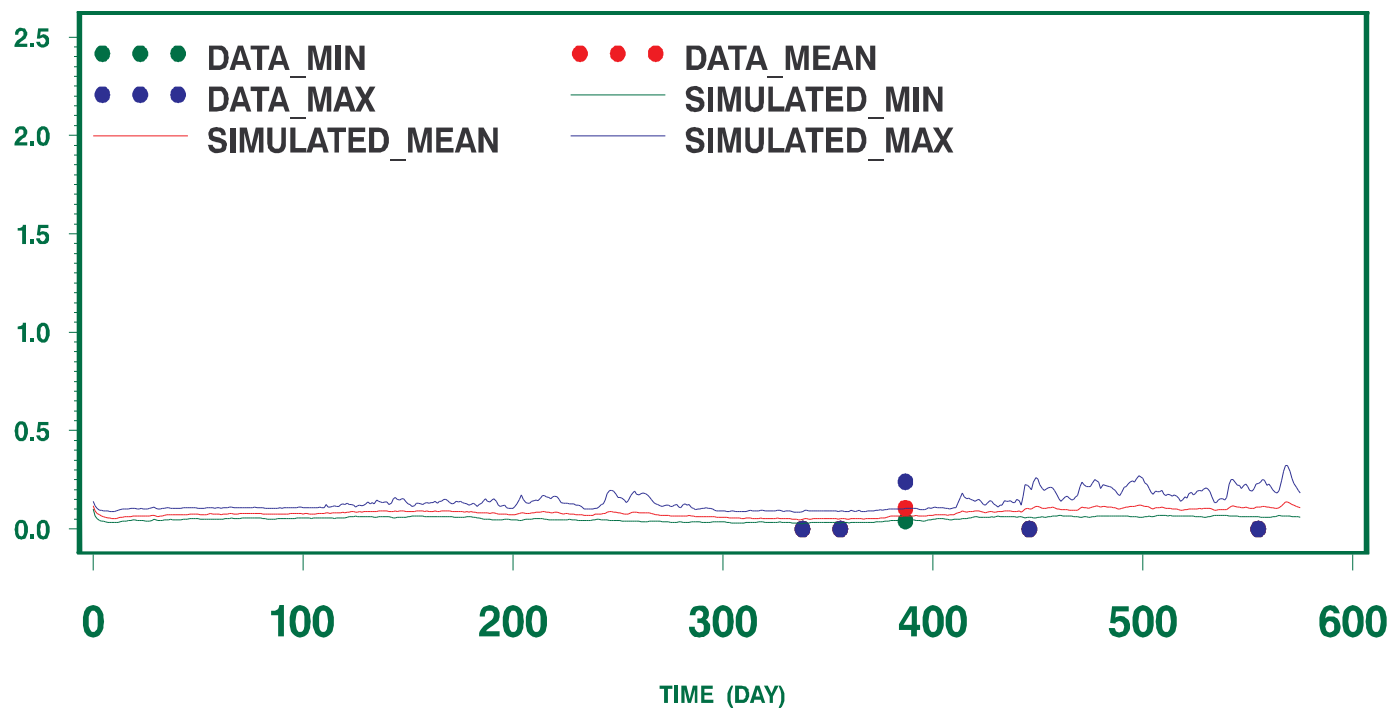
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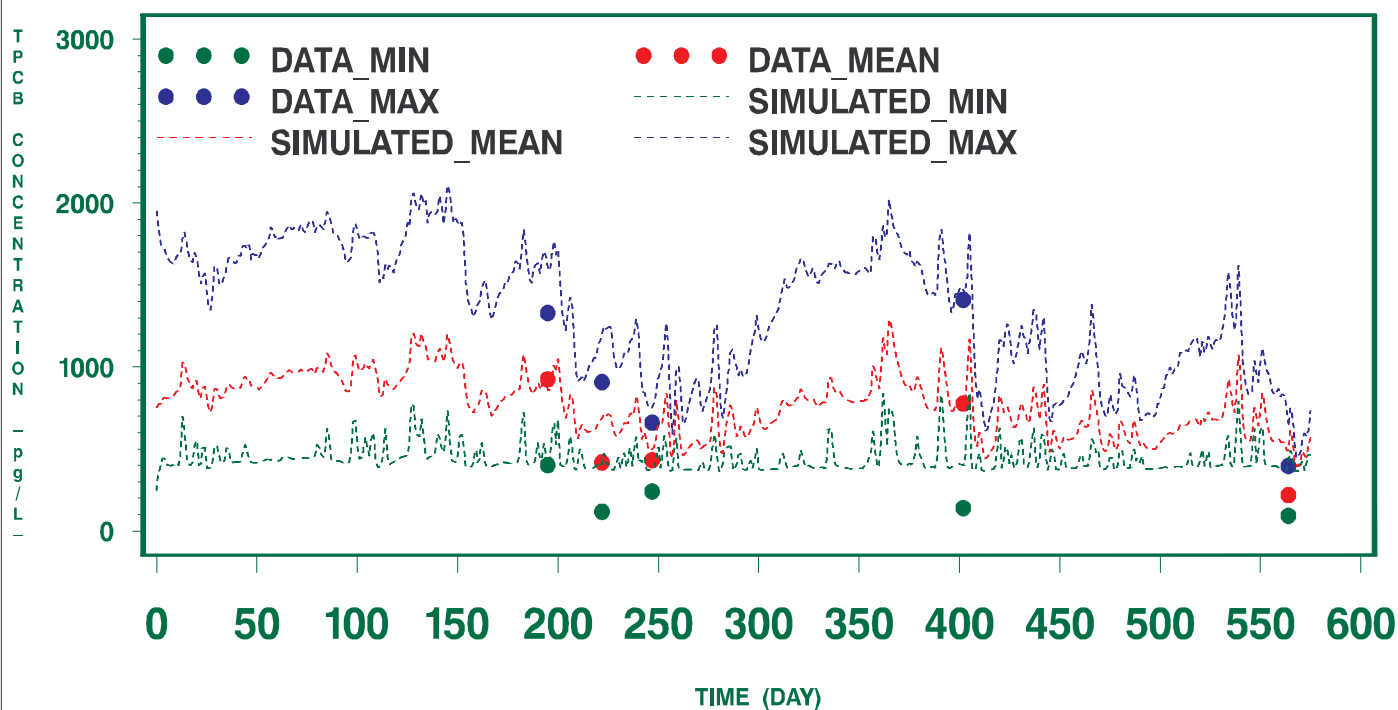
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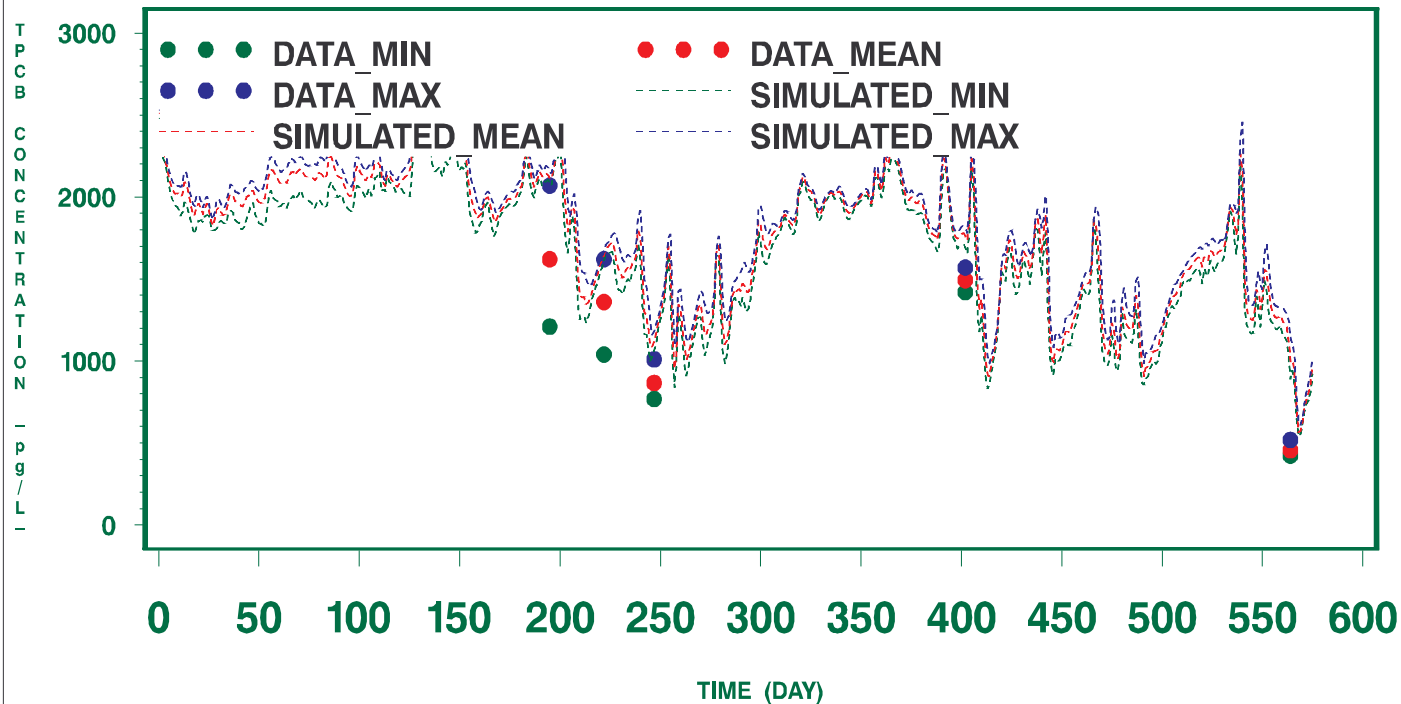
R1= μg PARTICULATE PENTA PCB/g OC
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TEMPORAL PLOTS OF WATER COLUMN TPCB FOR ZONE 2



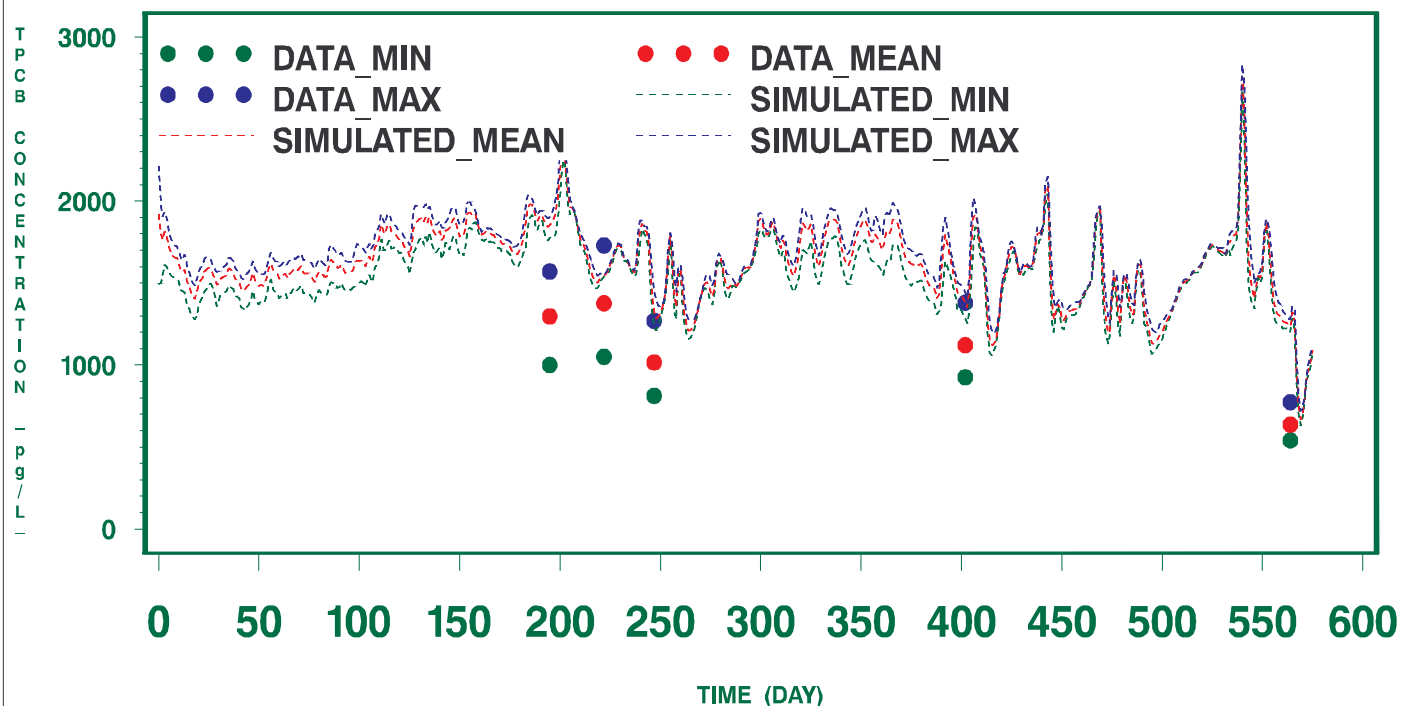
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TEMPORAL PLOTS OF WATER COLUMN TPCB FOR ZONE 3



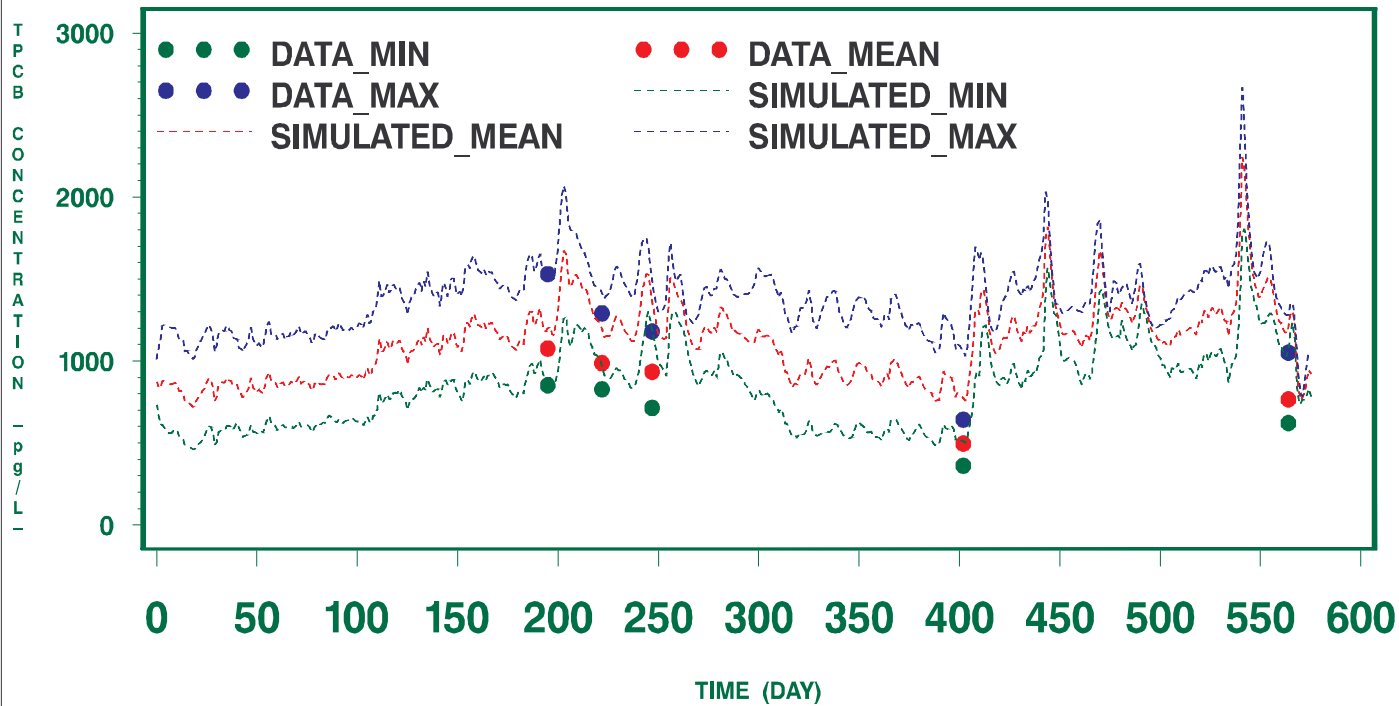
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TEMPORAL PLOTS OF WATER COLUMN TPCB FOR ZONE 4



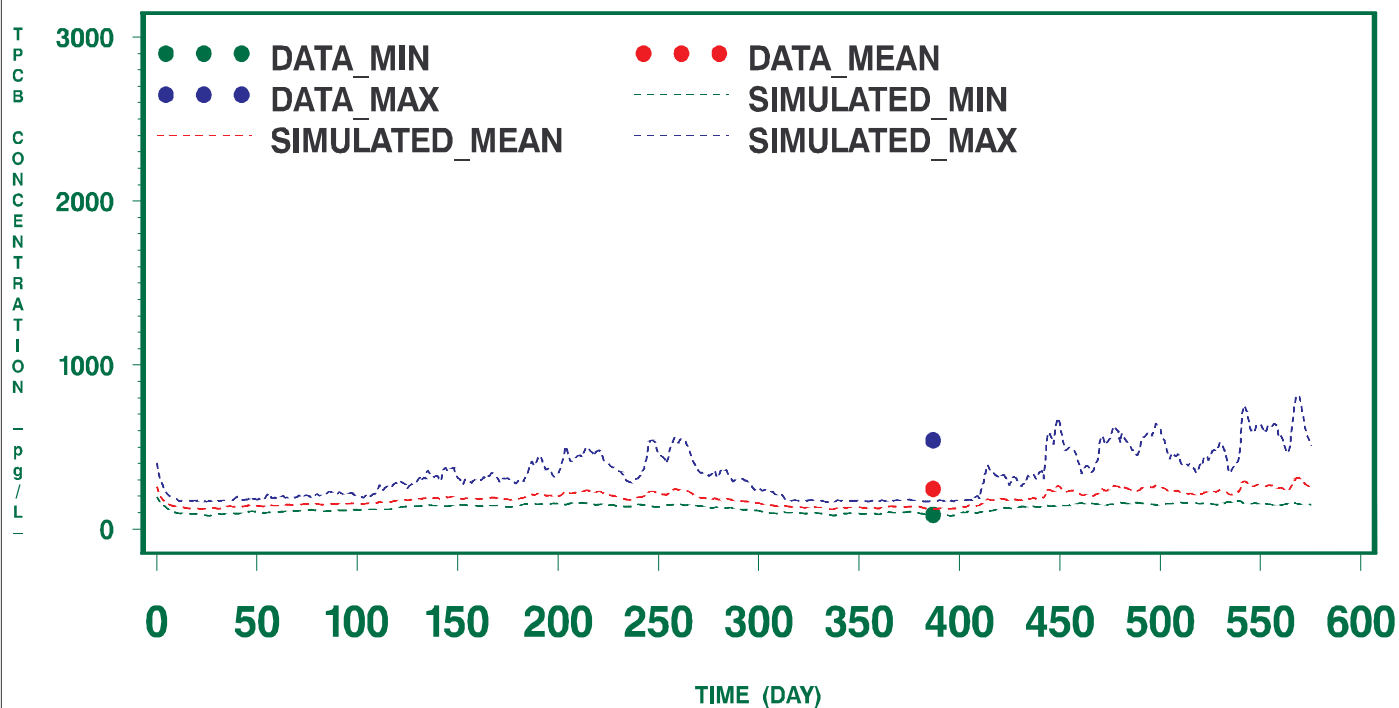
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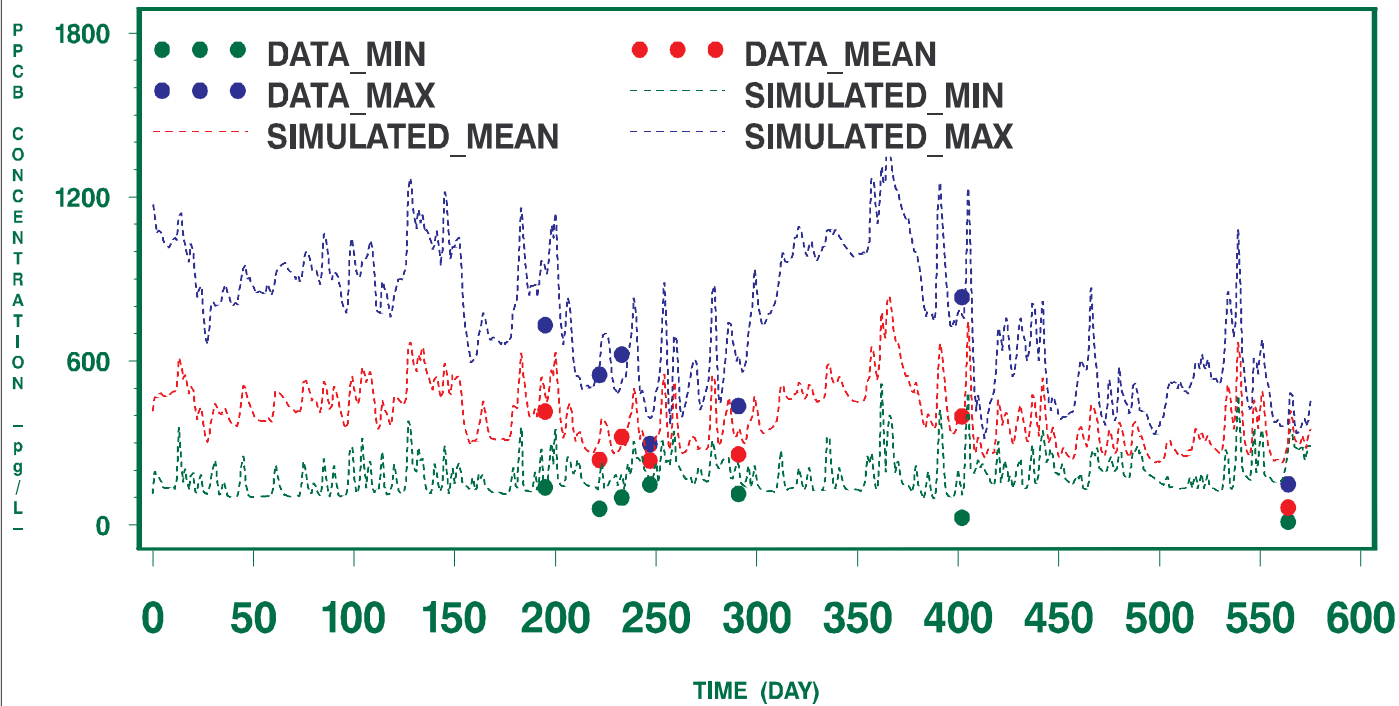
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TEMPORAL PLOTS OF WATER COLUMN TPCB FOR ZONE 6



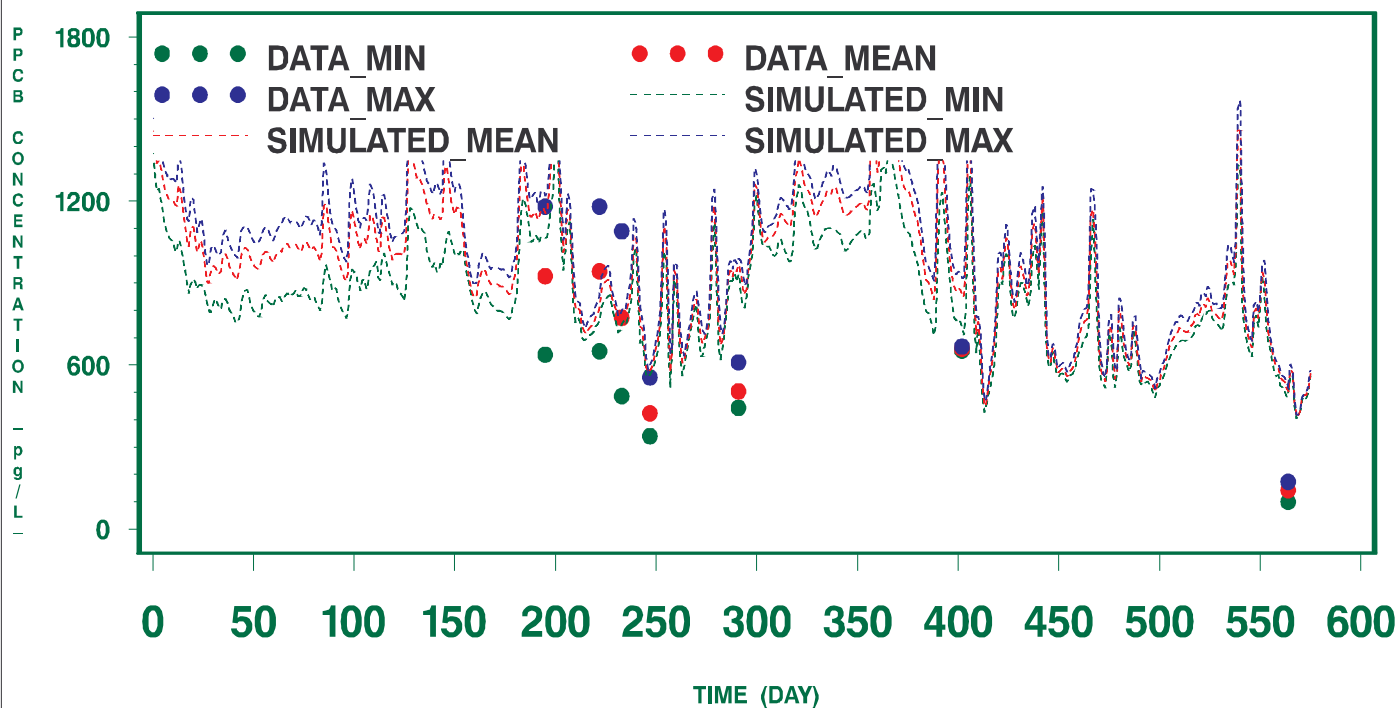
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TEMPORAL PLOTS OF WATER COLUMN PPCB FOR ZONE 2



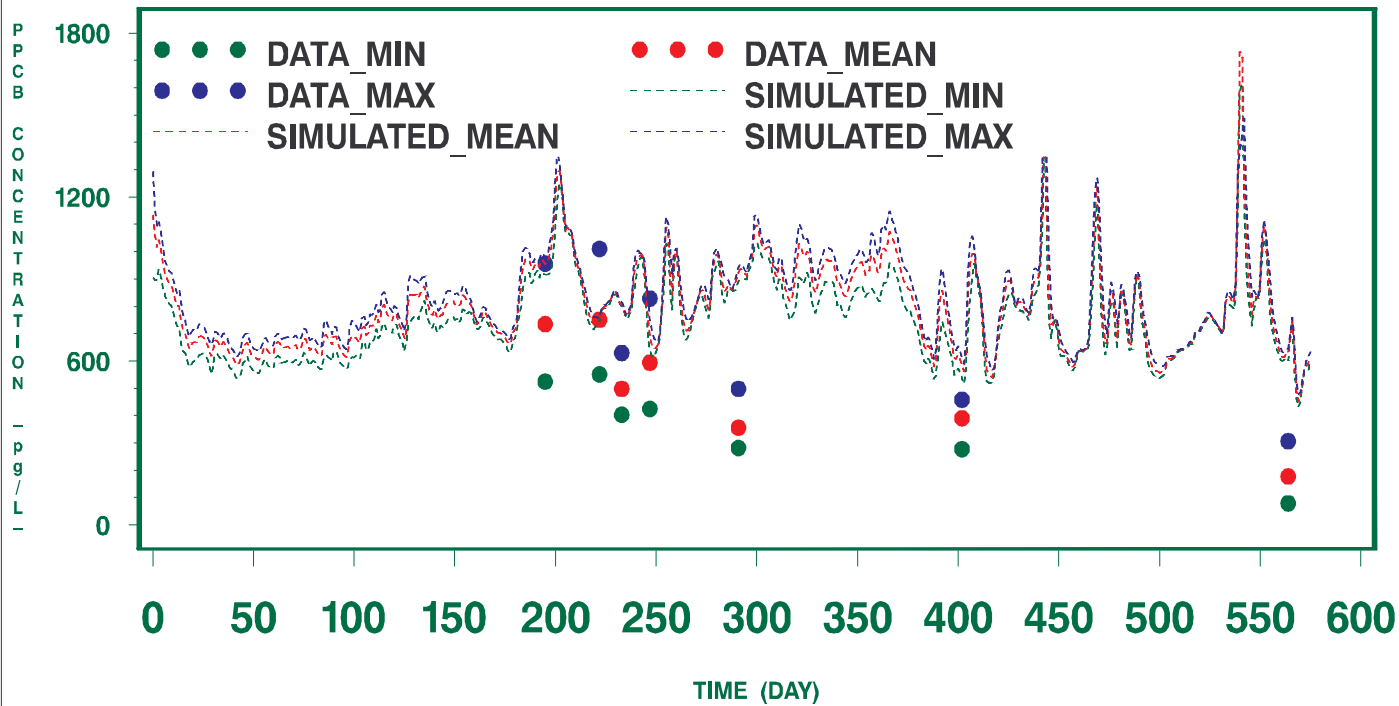
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TEMPORAL PLOTS OF WATER COLUMN PPCB FOR ZONE 3



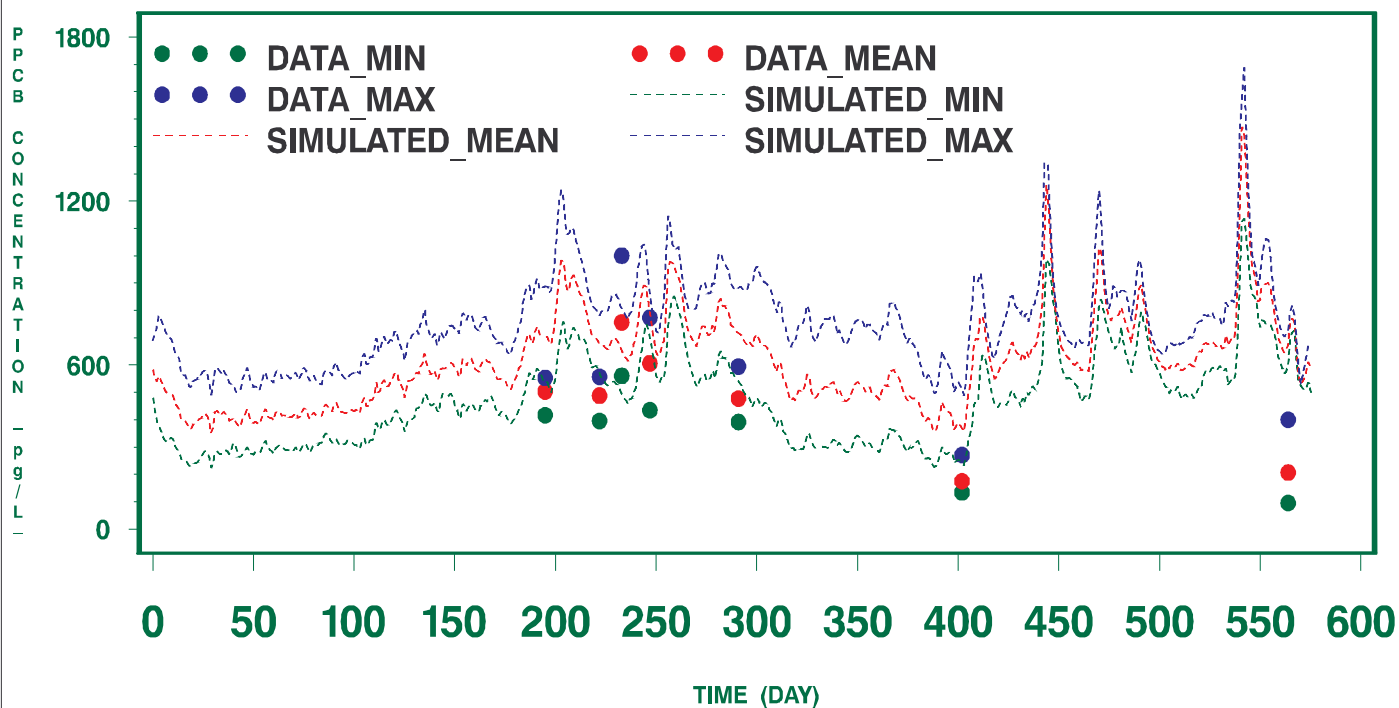
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TEMPORAL PLOTS OF WATER COLUMN PPCB FOR ZONE 4



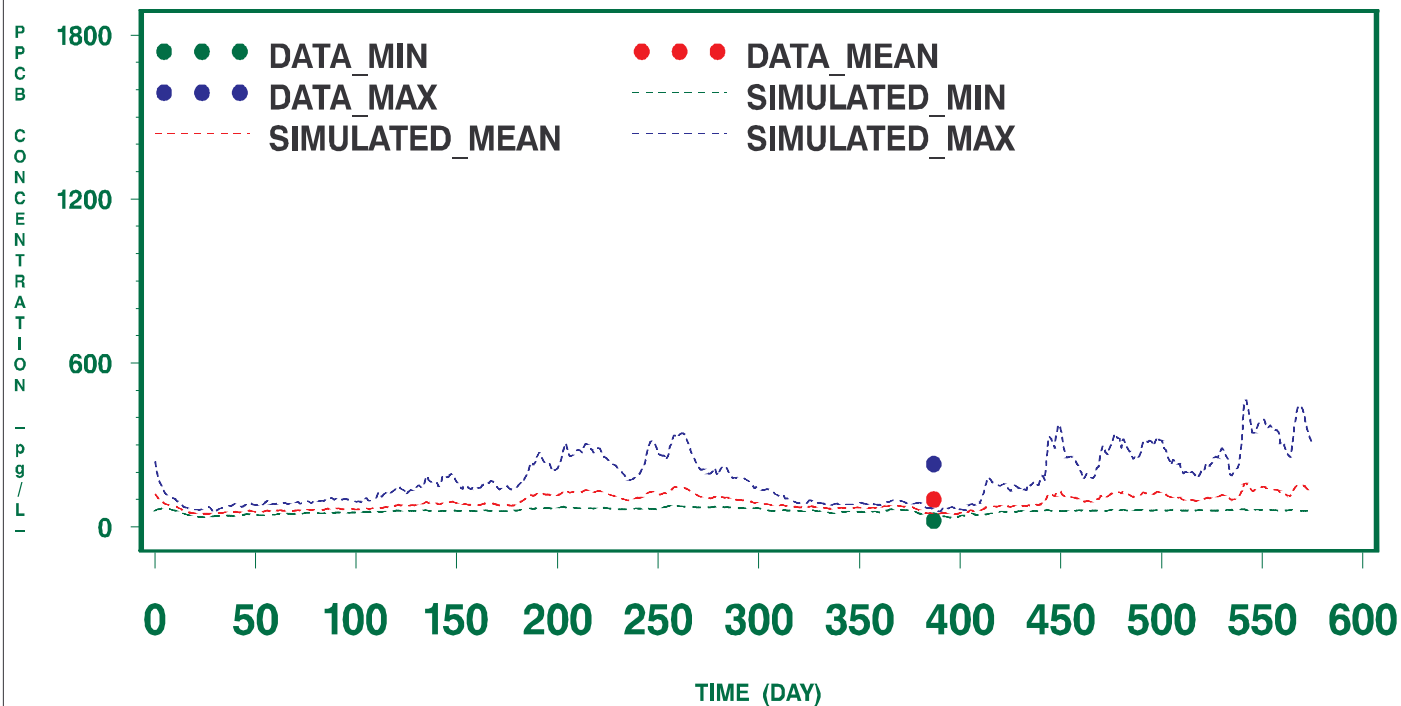
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TEMPORAL PLOTS OF WATER COLUMN PPCB FOR ZONE 5



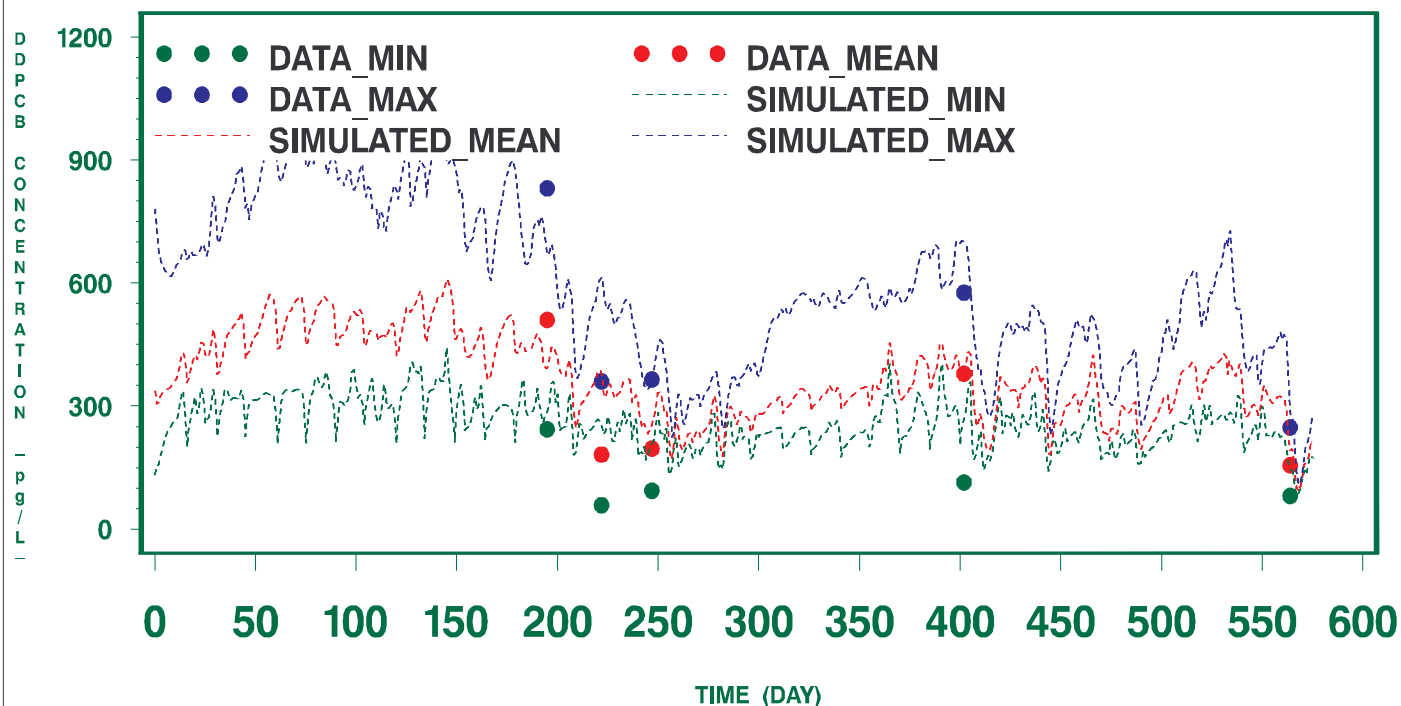
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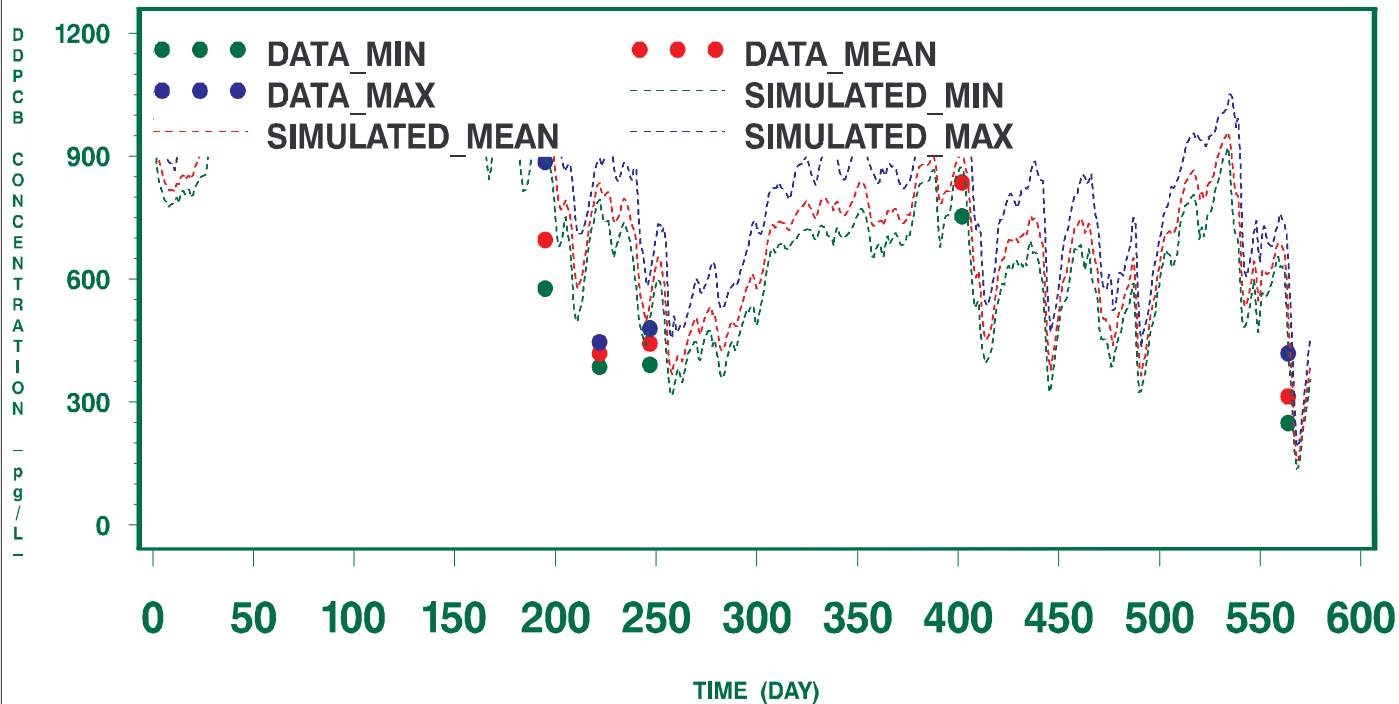
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TEMPORAL PLOTS OF WATER COLUMN DDP CB FOR ZONE 2



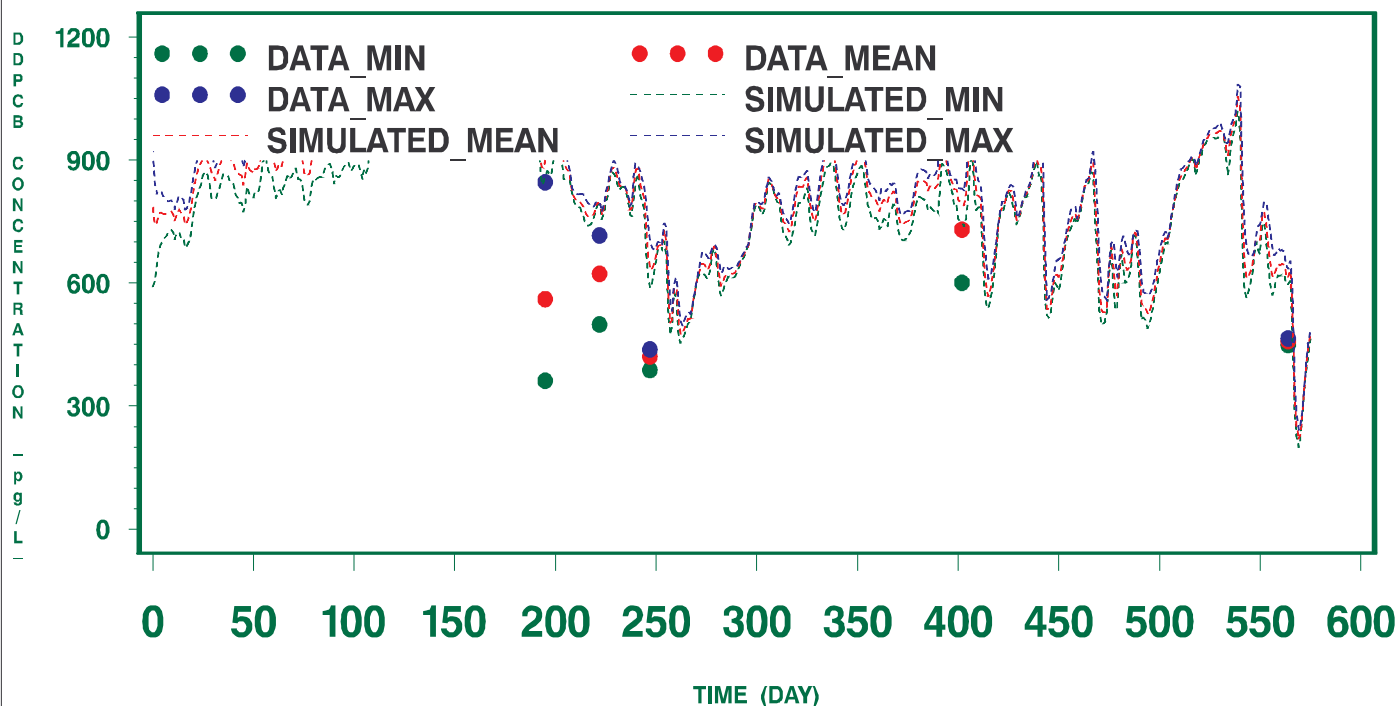
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TEMPORAL PLOTS OF WATER COLUMN DDPCB FOR ZONE 3



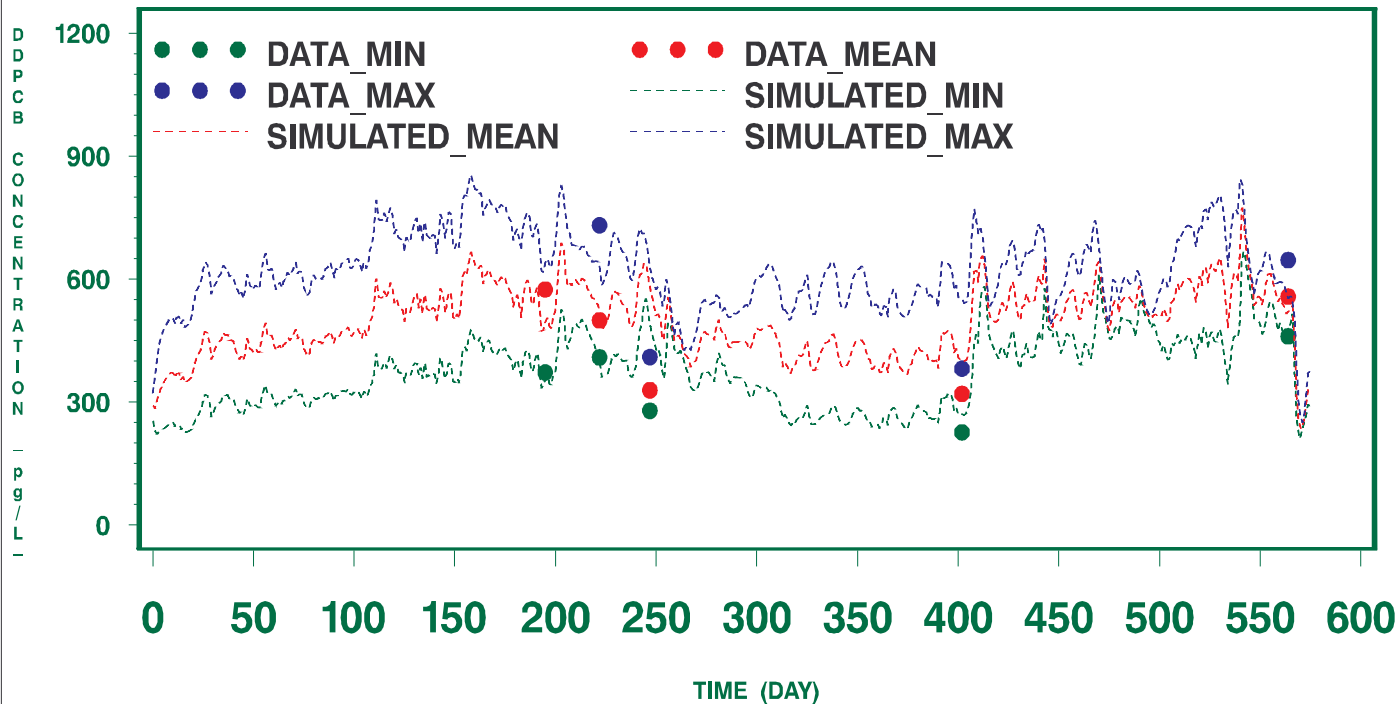
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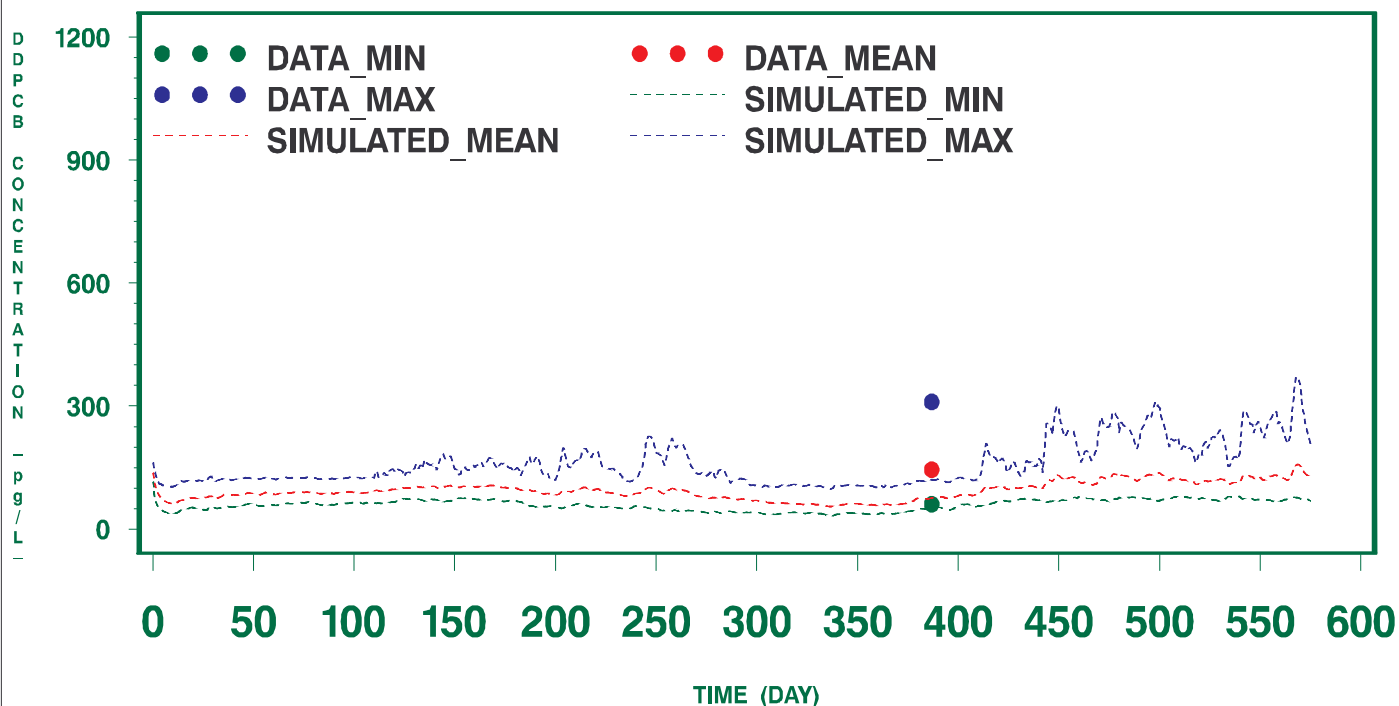
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TEMPORAL PLOTS OF WATER COLUMN DDPCB FOR ZONE 5



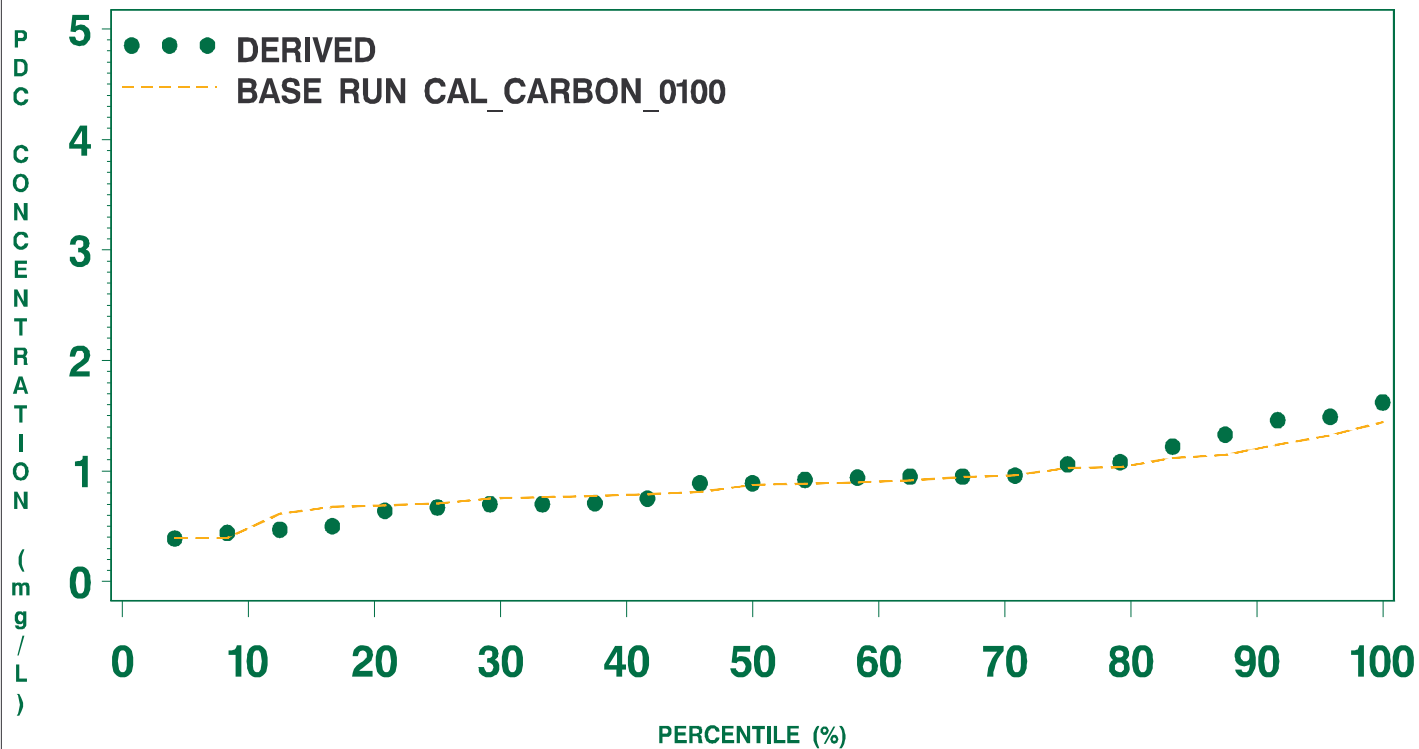
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TEMPORAL PLOTS OF WATER COLUMN DDPCB FOR ZONE 6



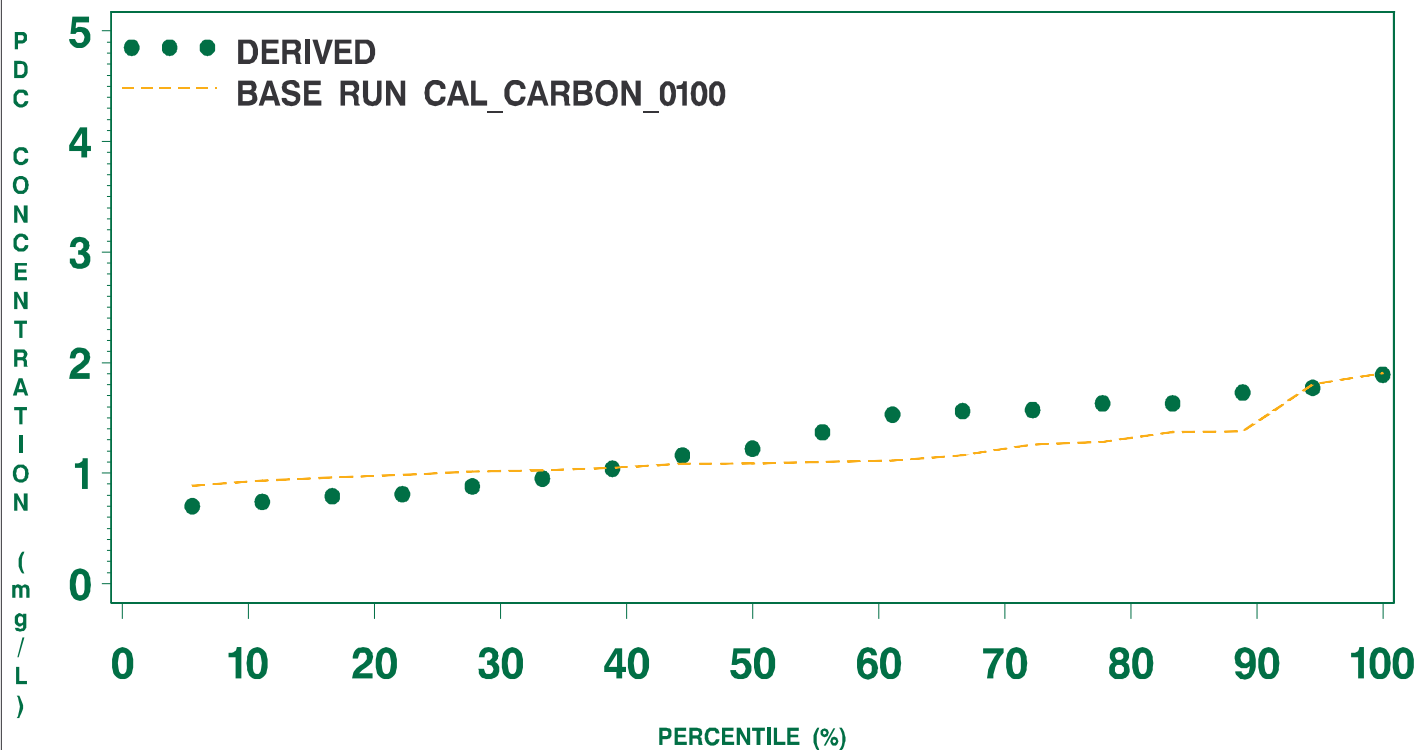
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CUMULATIVE FREQUENCY DISTRIBUTION OF PDC FOR ZONE 2



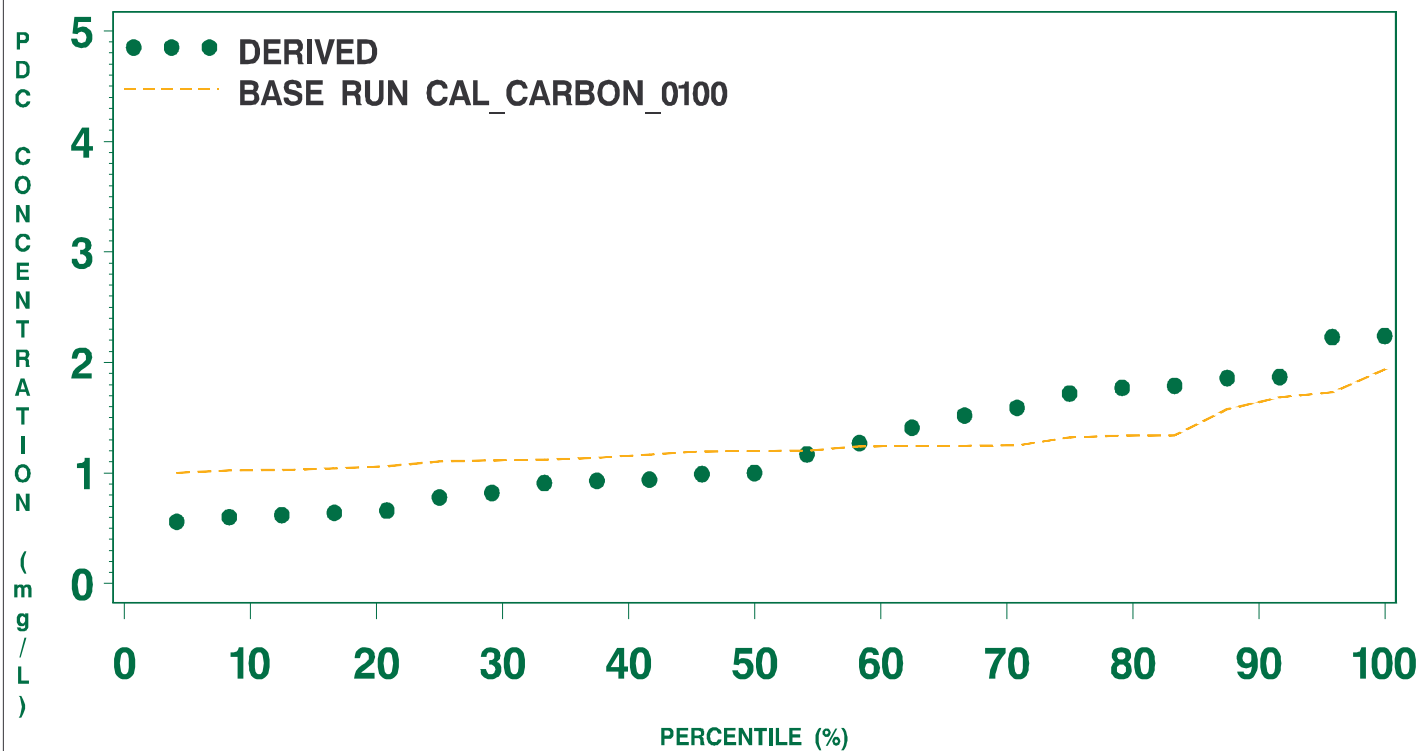
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CUMULATIVE FREQUENCY DISTRIBUTION OF PDC FOR ZONE 3



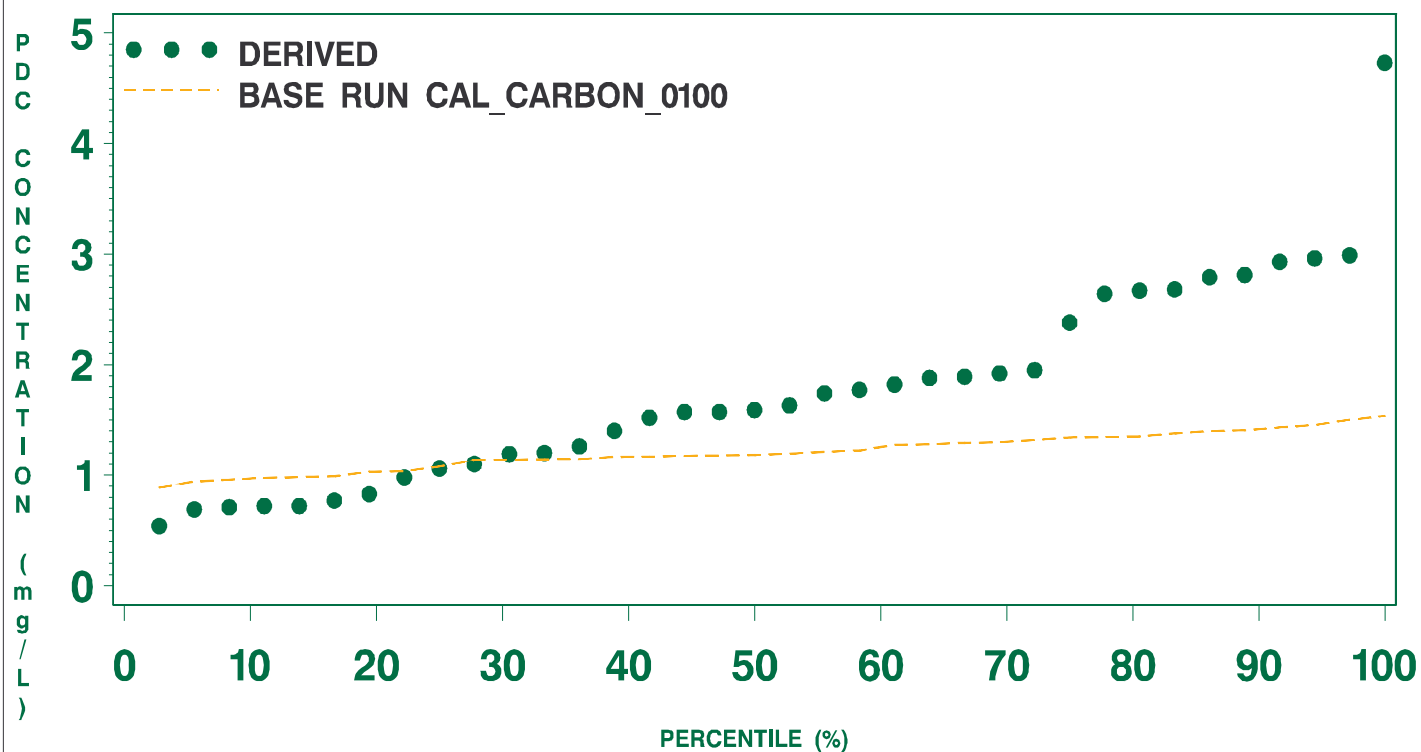
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CUMULATIVE FREQUENCY DISTRIBUTION OF PDC FOR ZONE 4



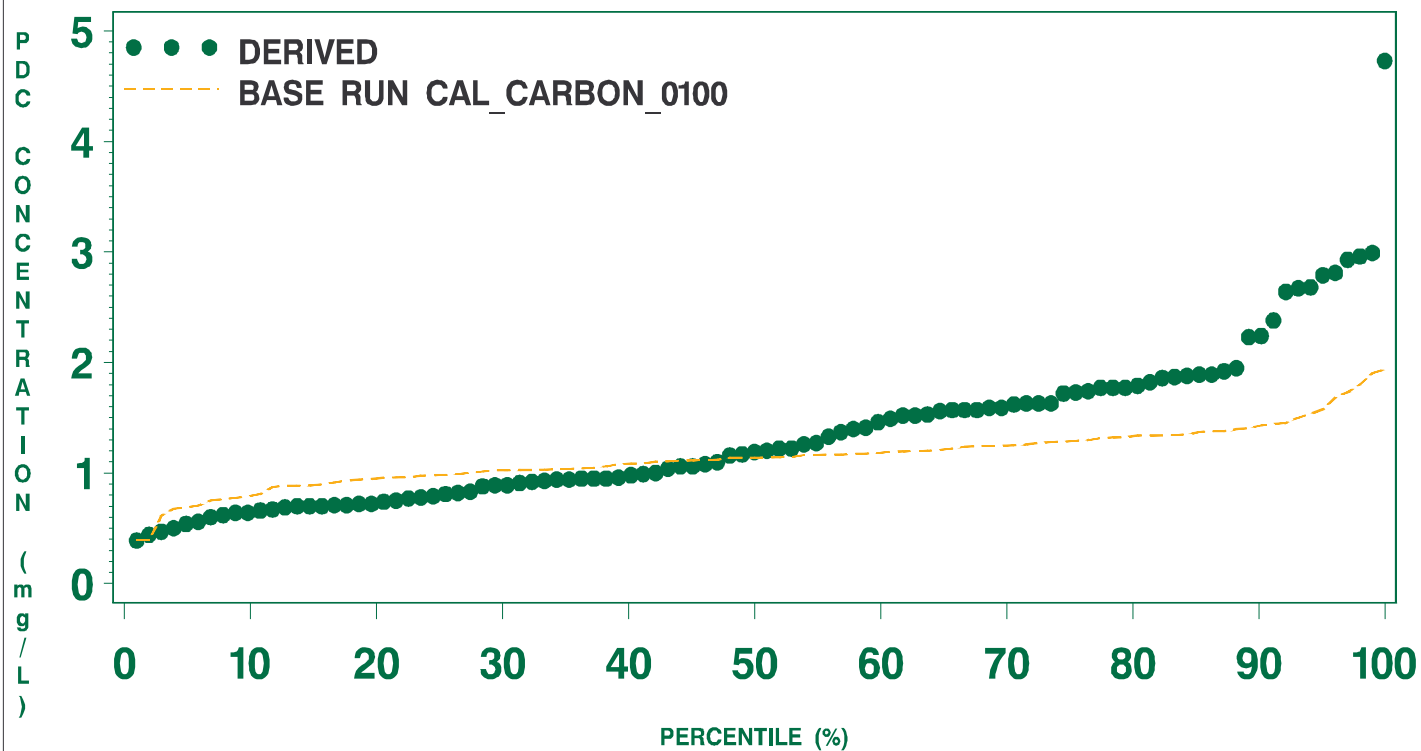
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CUMULATIVE FREQUENCY DISTRIBUTION OF PDC FOR ZONE 5



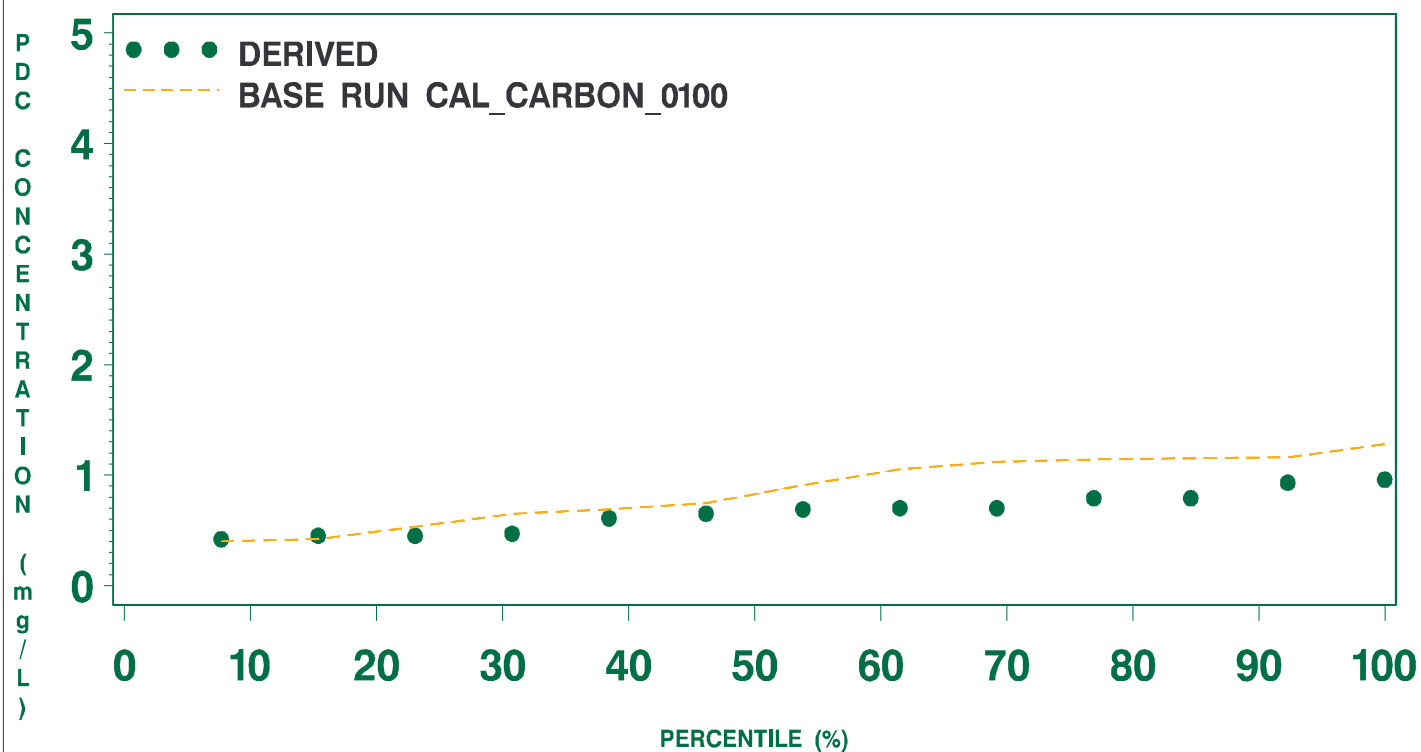
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CUMULATIVE FREQUENCY DISTRIBUTION OF PDC FOR ZONES 2–5



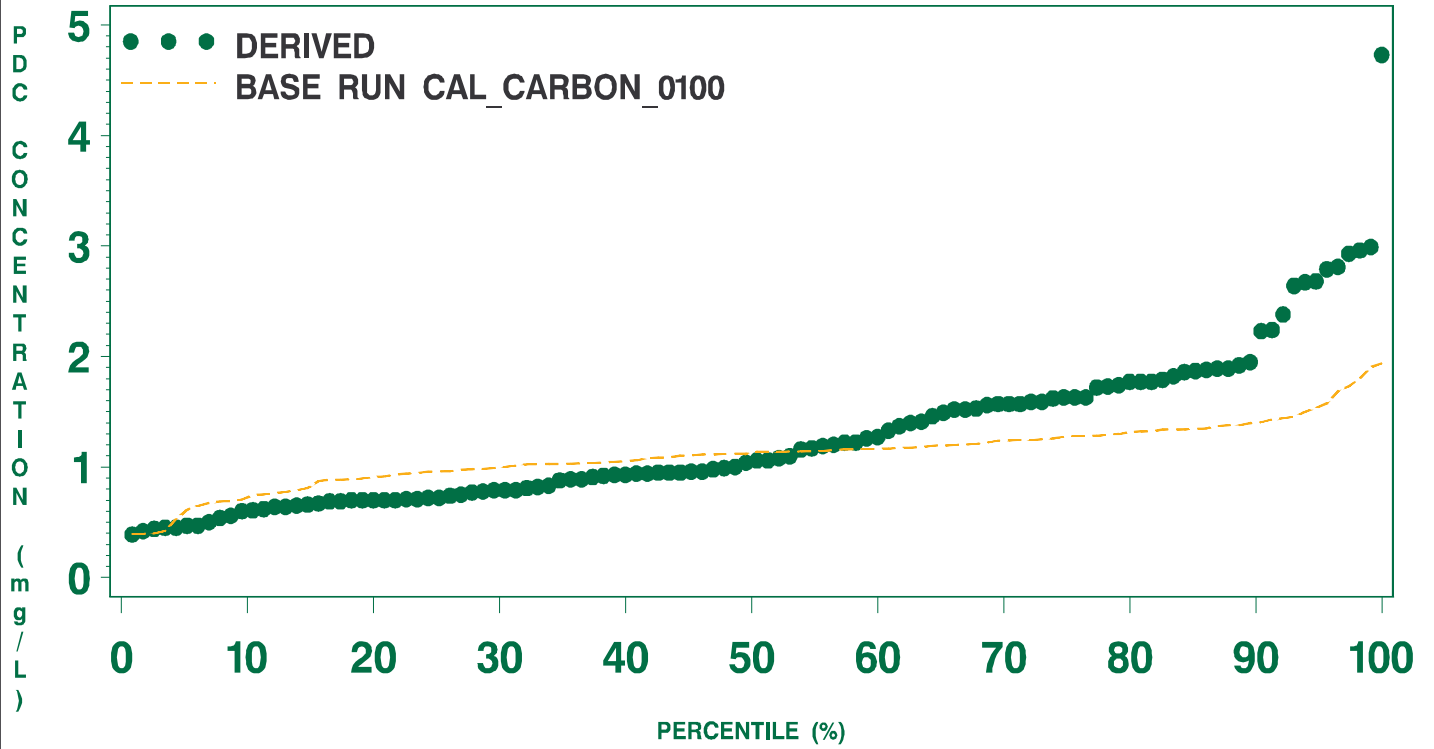
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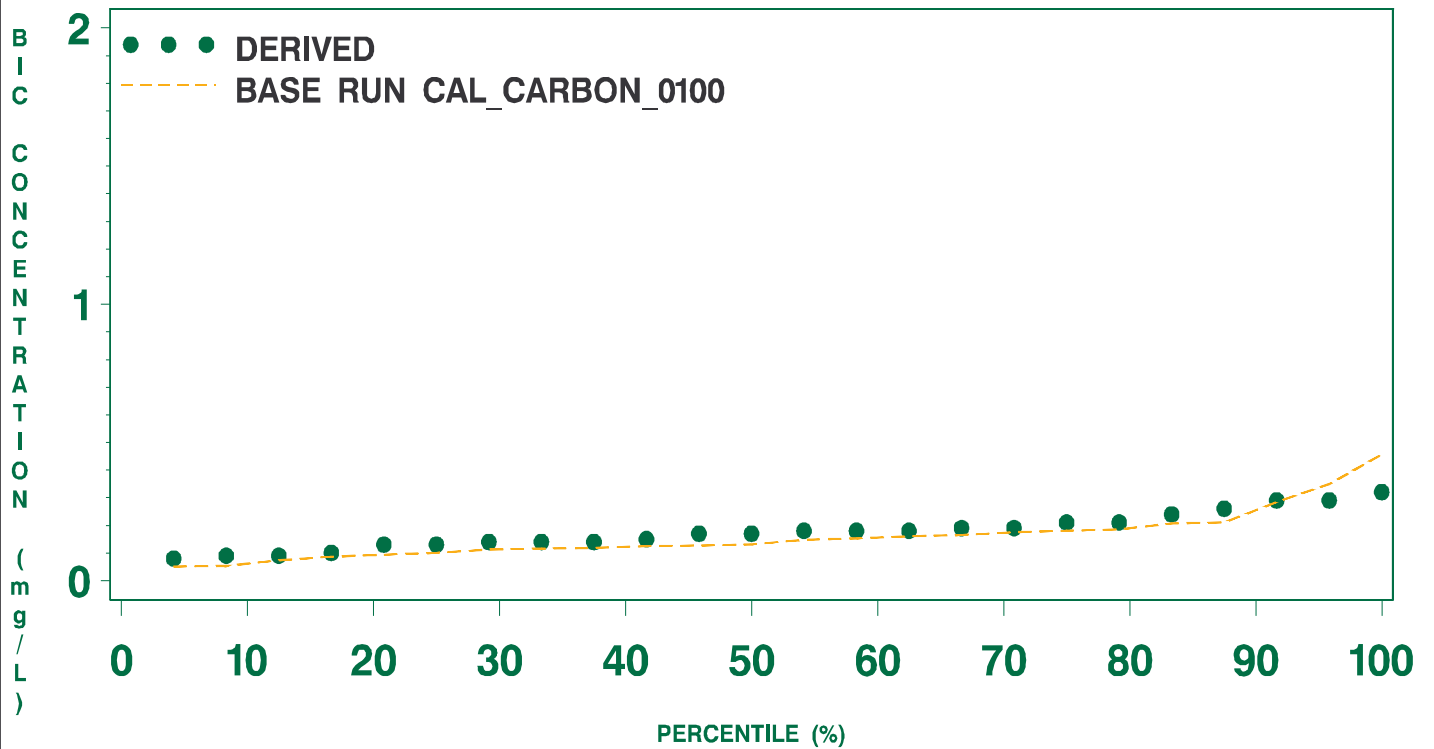
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CUMULATIVE FREQUENCY DISTRIBUTION OF PDC FOR ALL ZONES



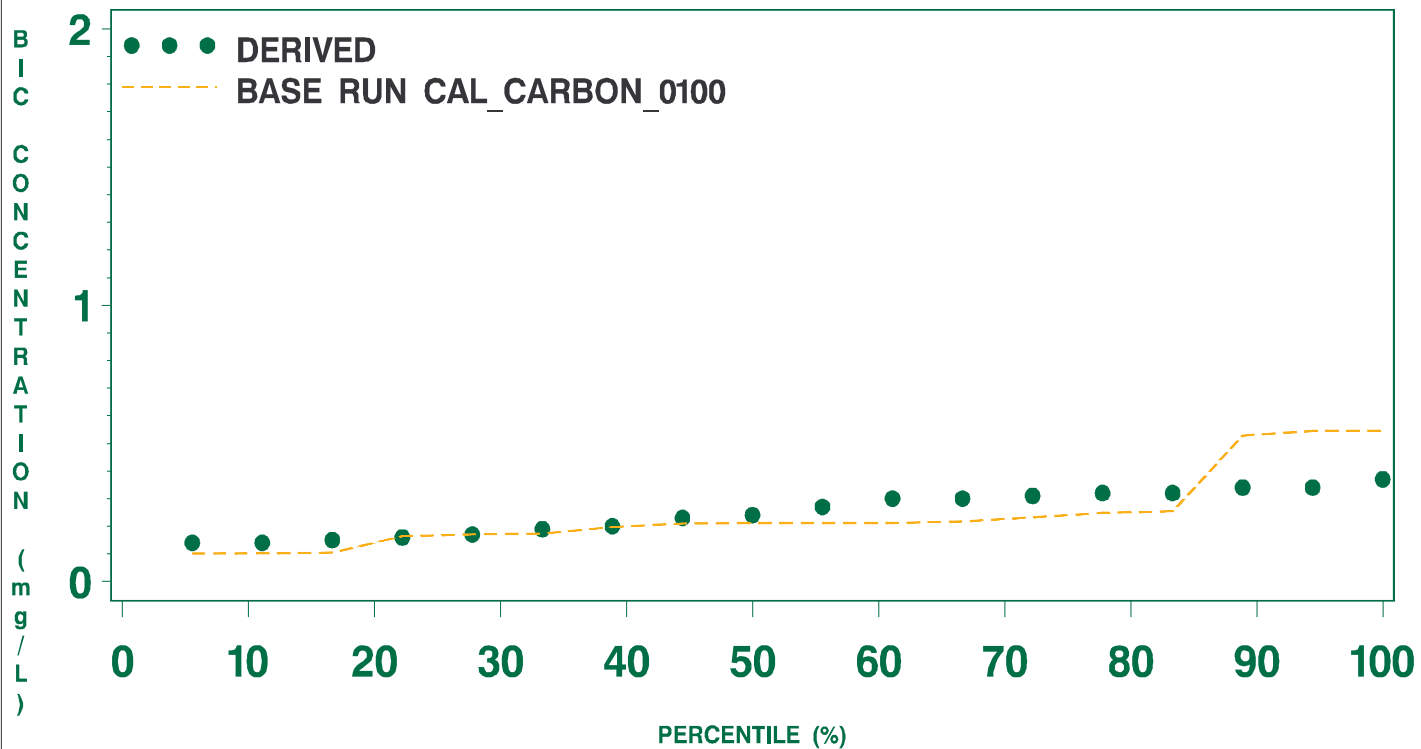
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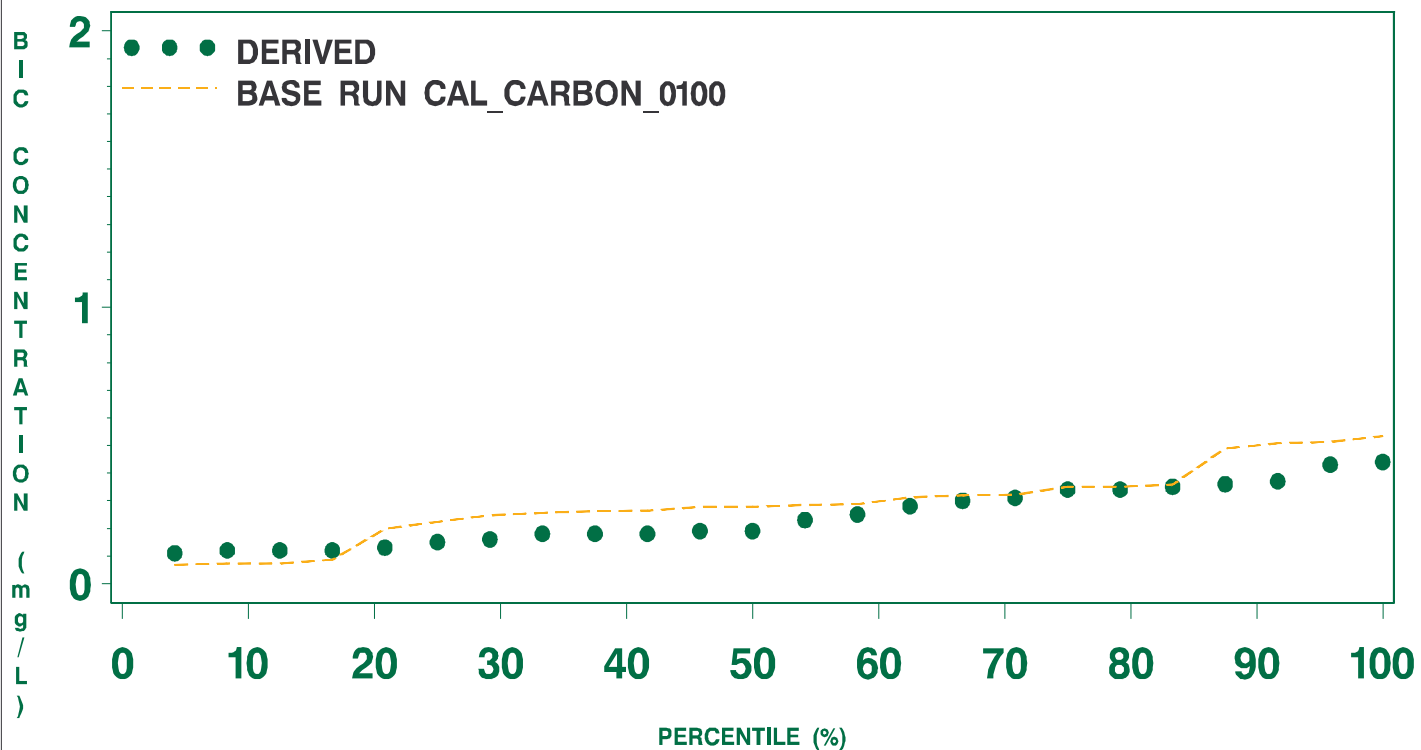
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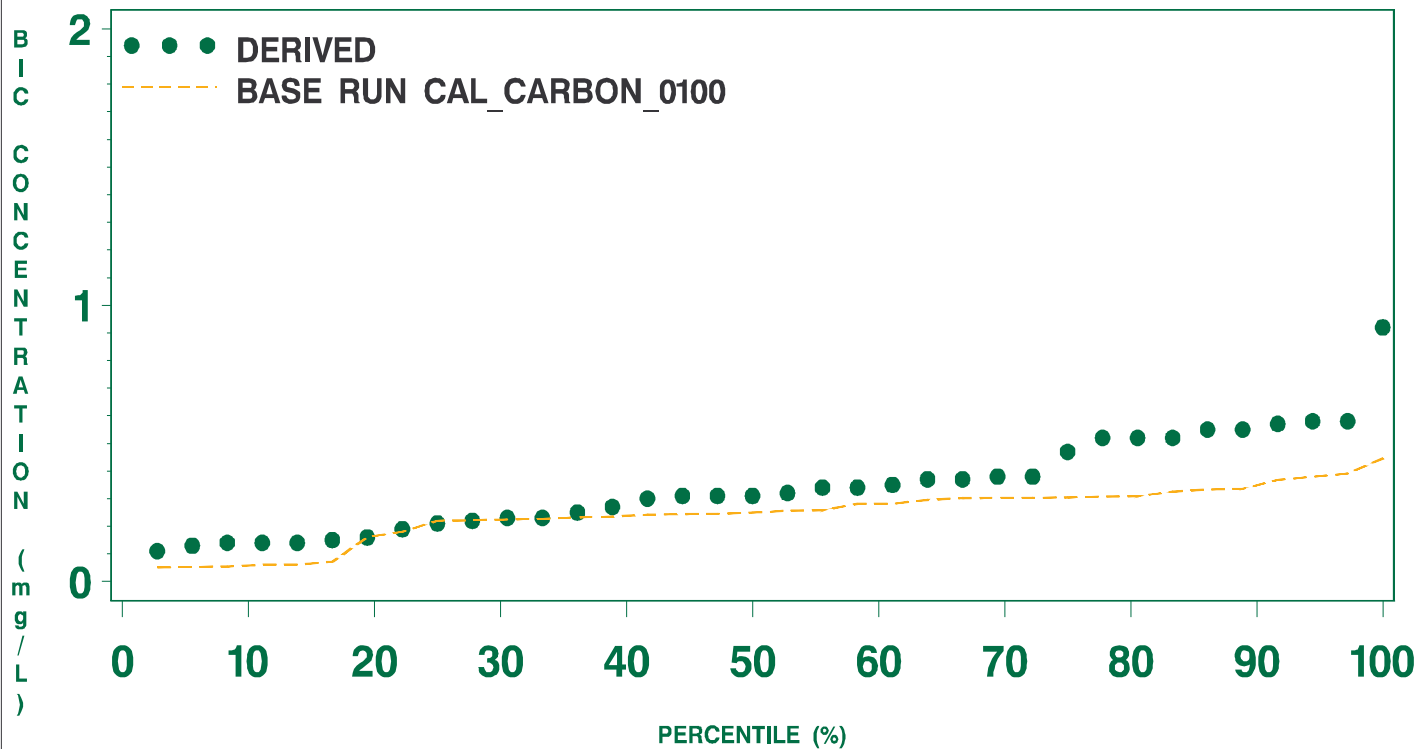
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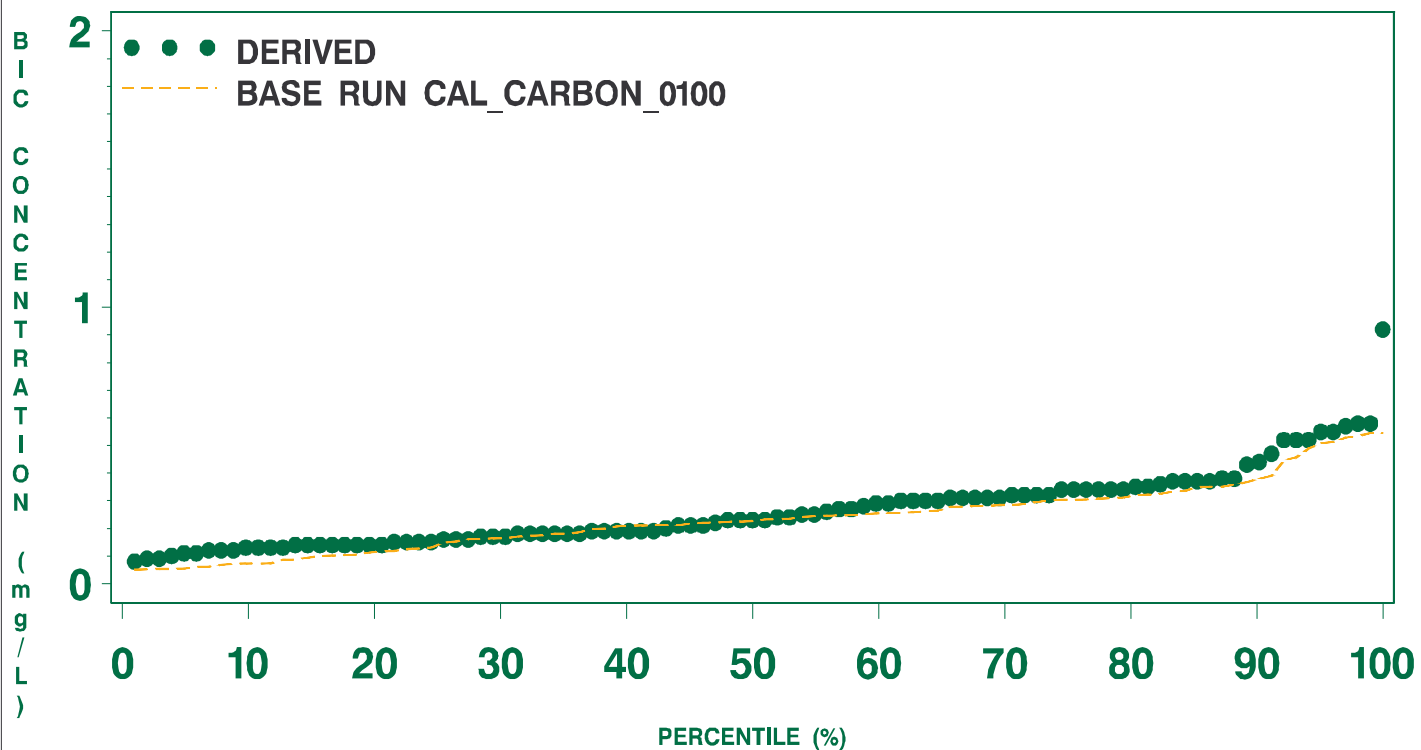
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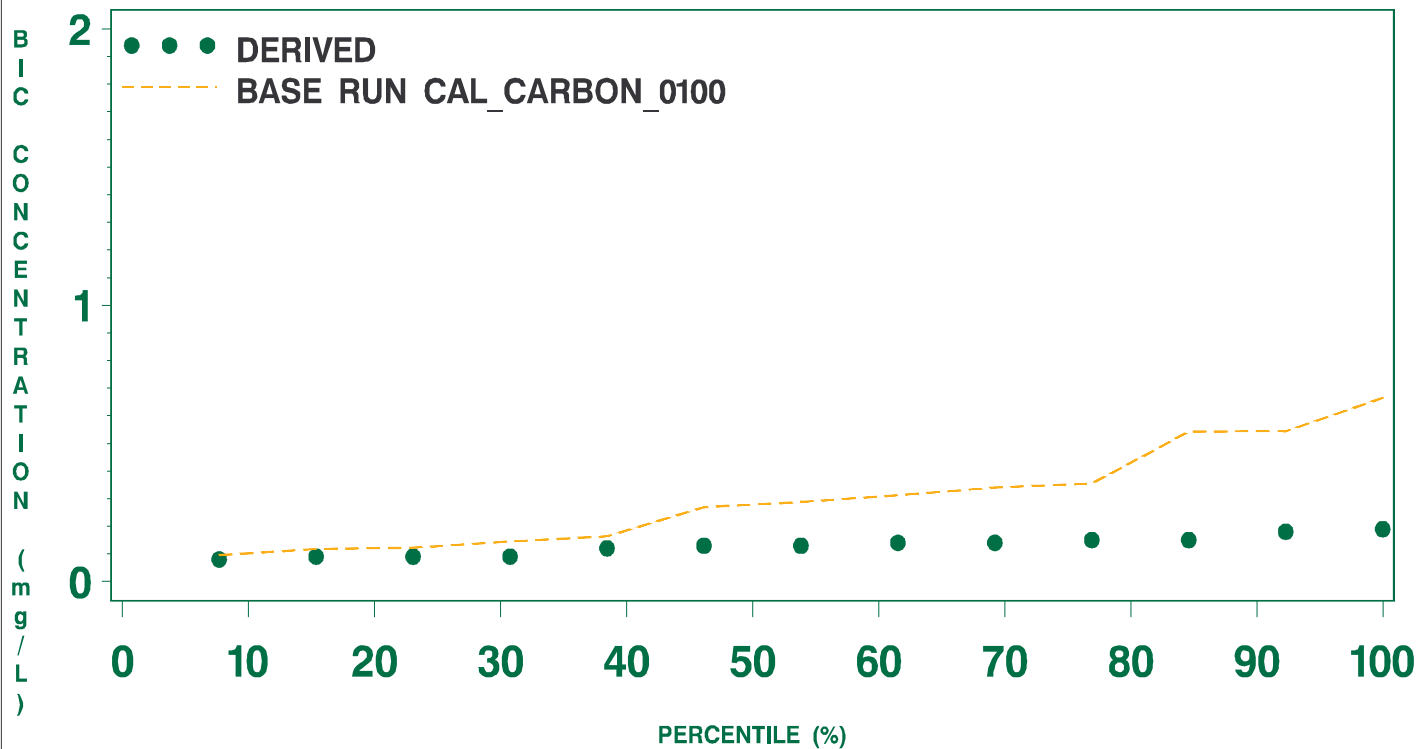
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CUMULATIVE FREQUENCY DISTRIBUTION OF BIC FOR ZONES 2-5



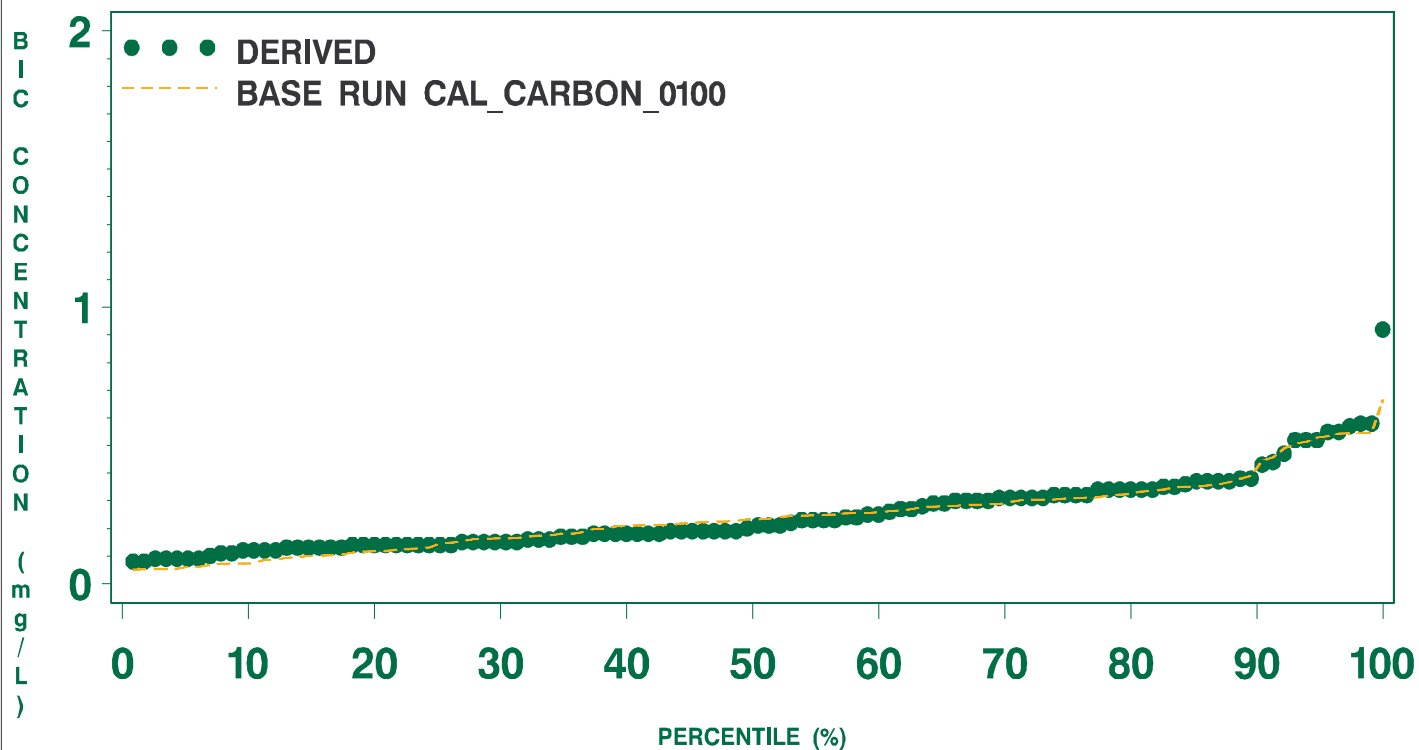
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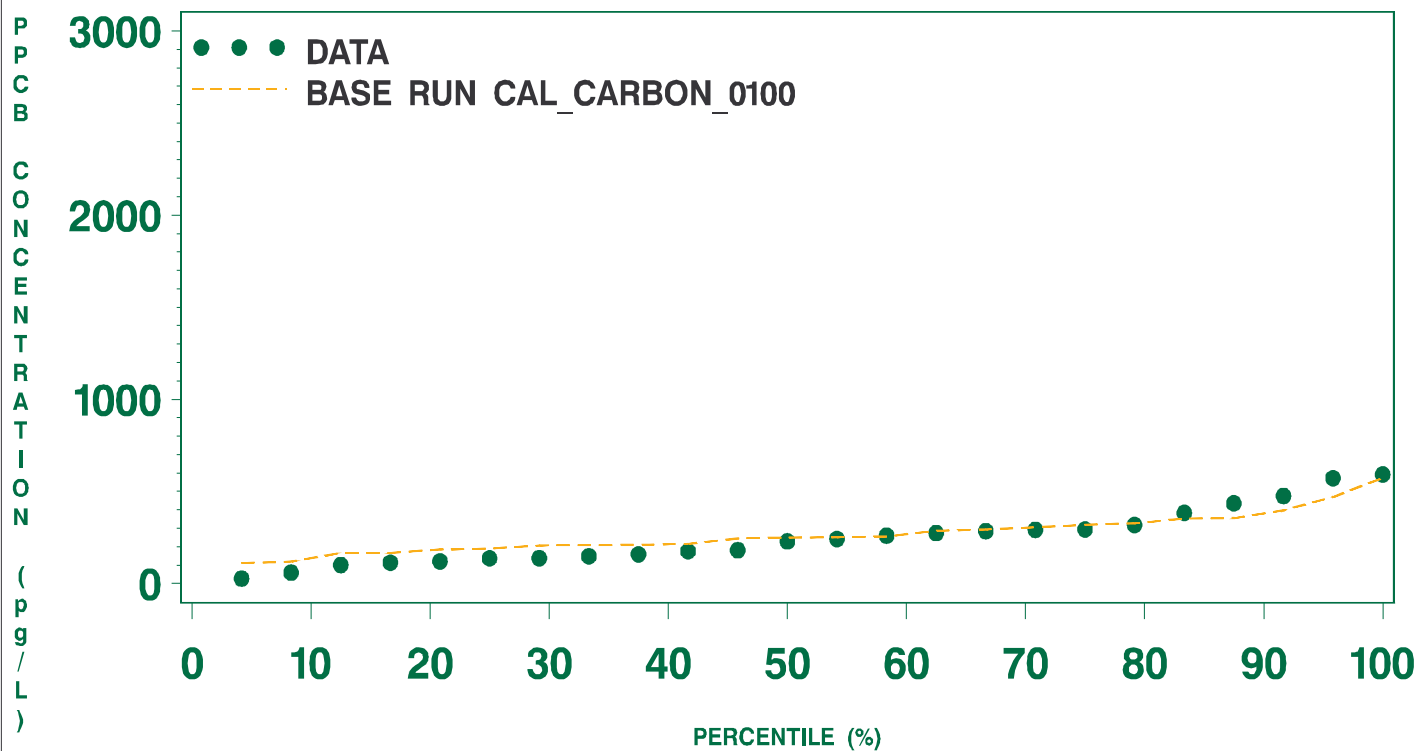
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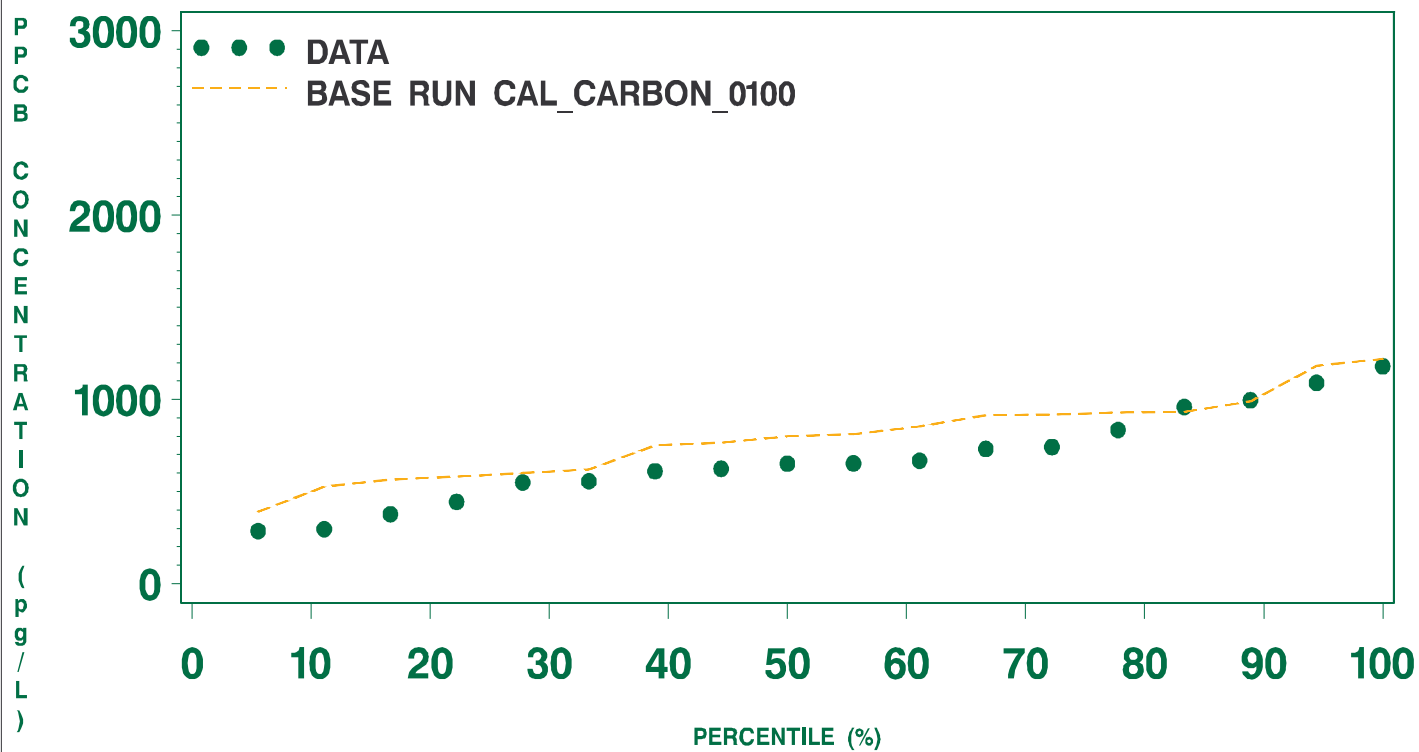
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CUMULATIVE FREQUENCY DISTRIBUTION OF PPCB FOR ZONE 2



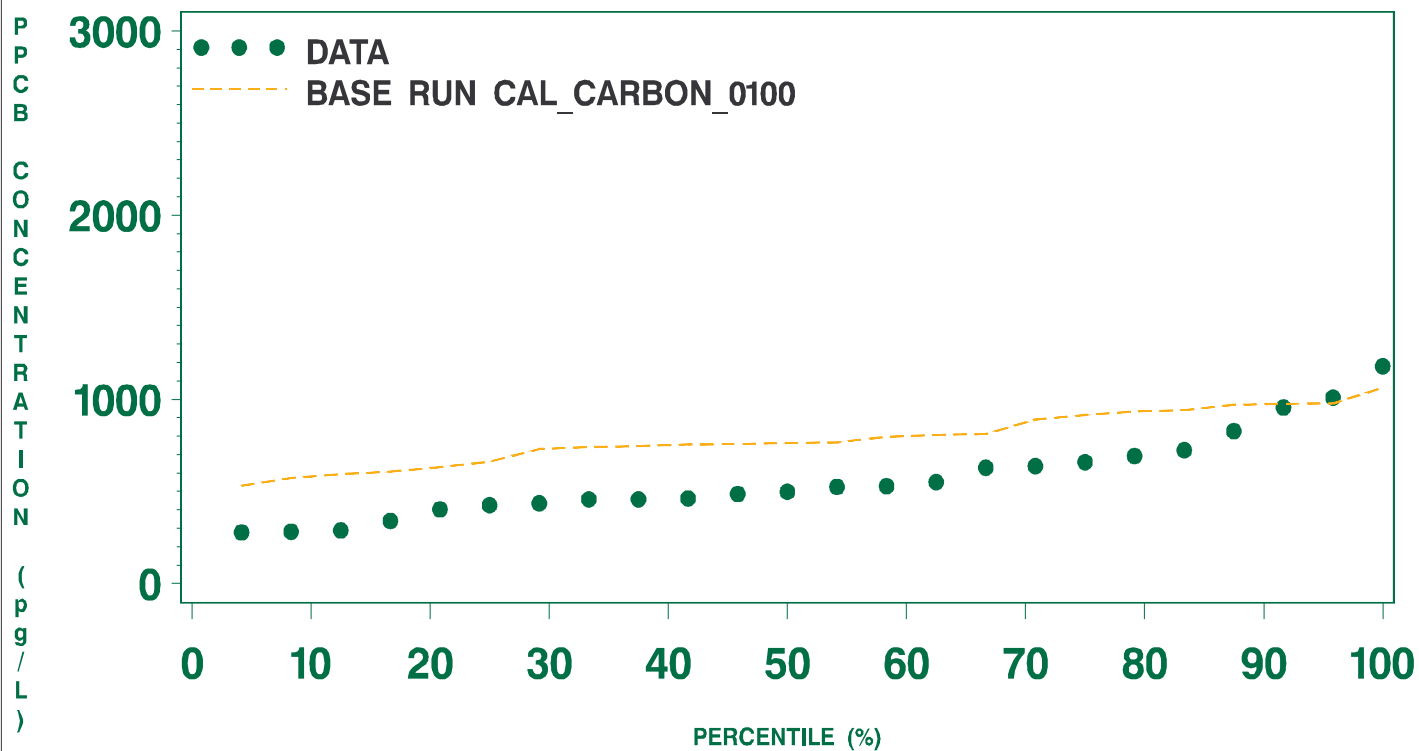
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CUMULATIVE FREQUENCY DISTRIBUTION OF PPCB FOR ZONE 3



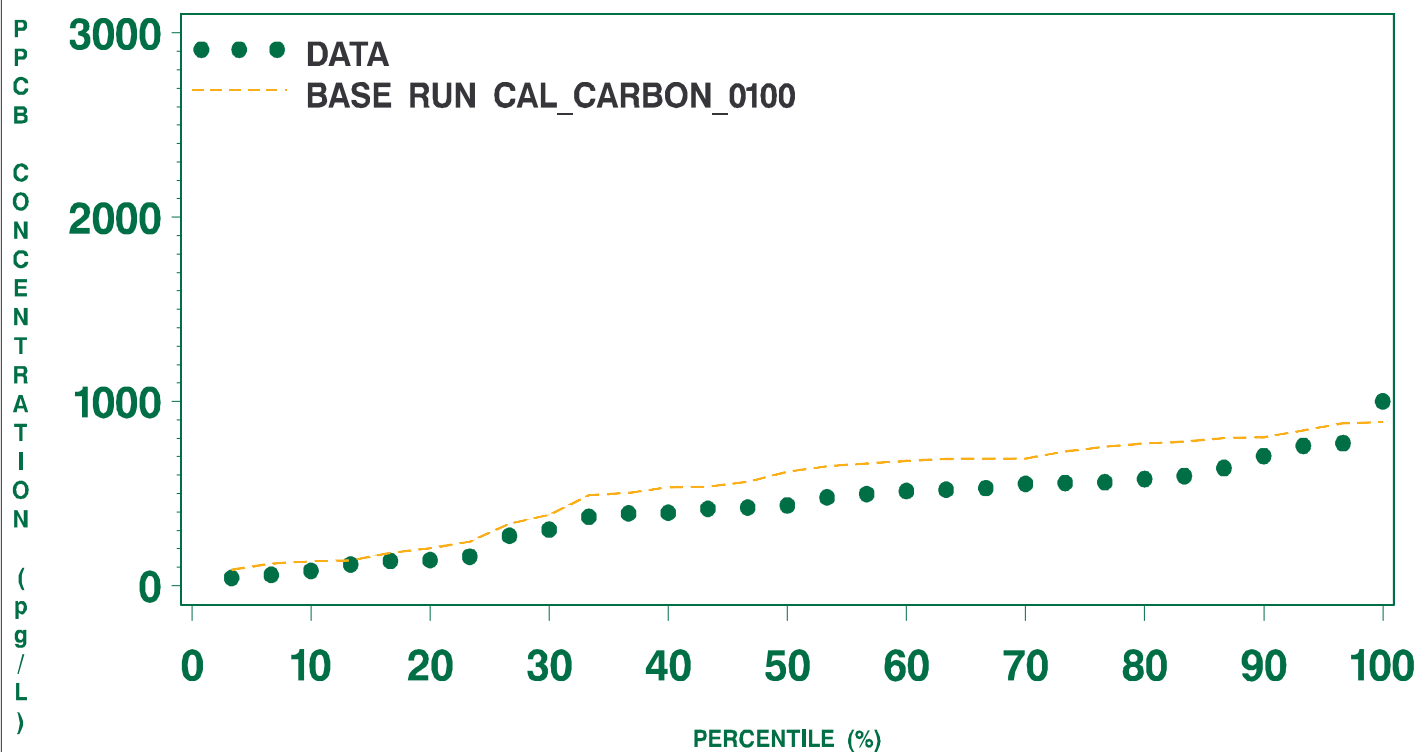
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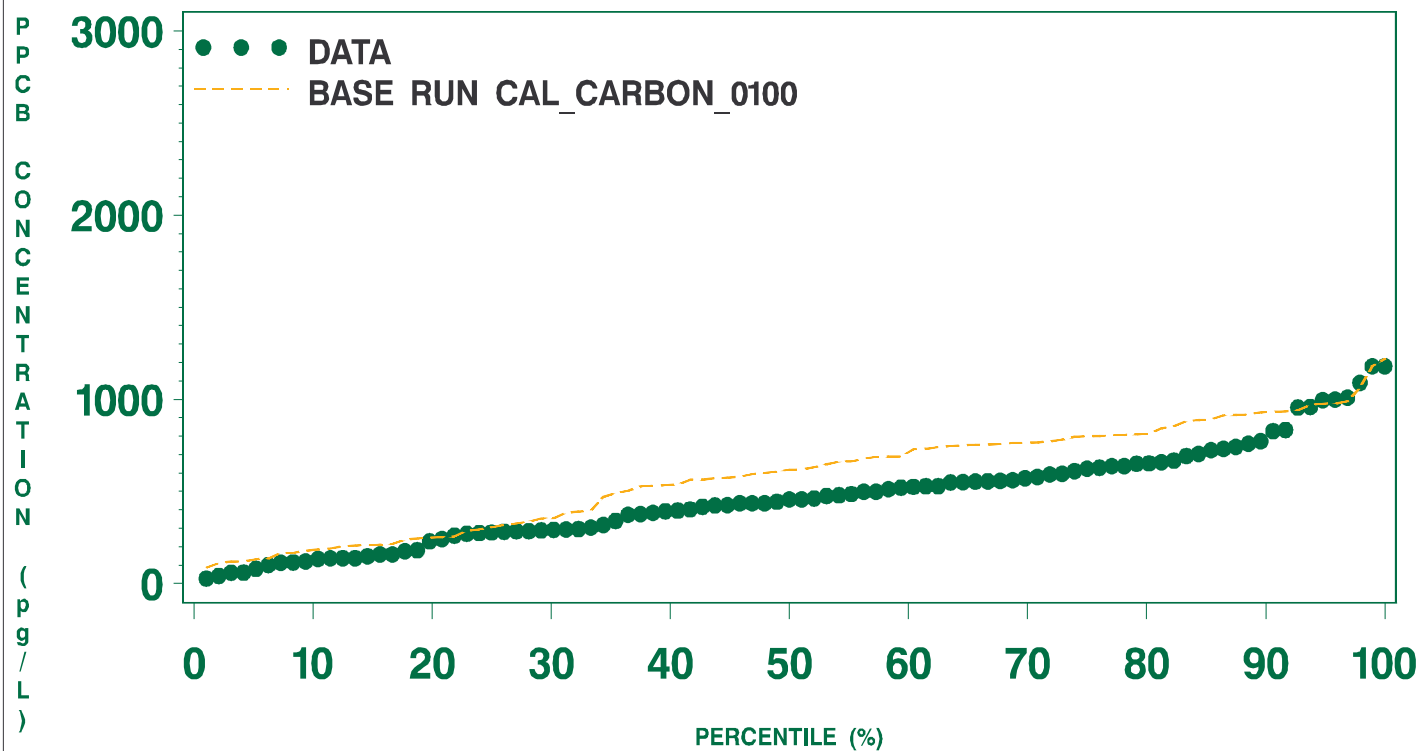
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CUMULATIVE FREQUENCY DISTRIBUTION OF PPCB FOR ZONE 5



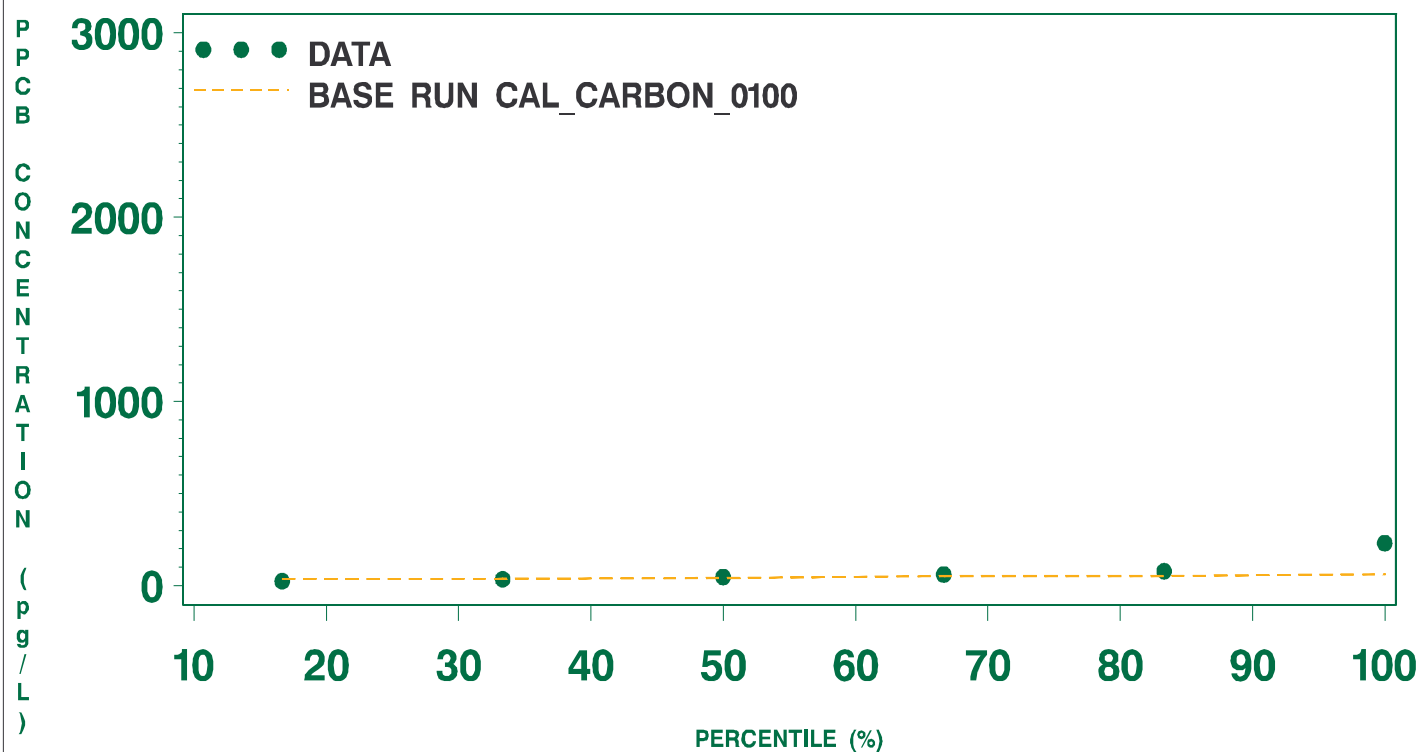
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CUMULATIVE FREQUENCY DISTRIBUTION OF PPCB FOR ZONES 2–5



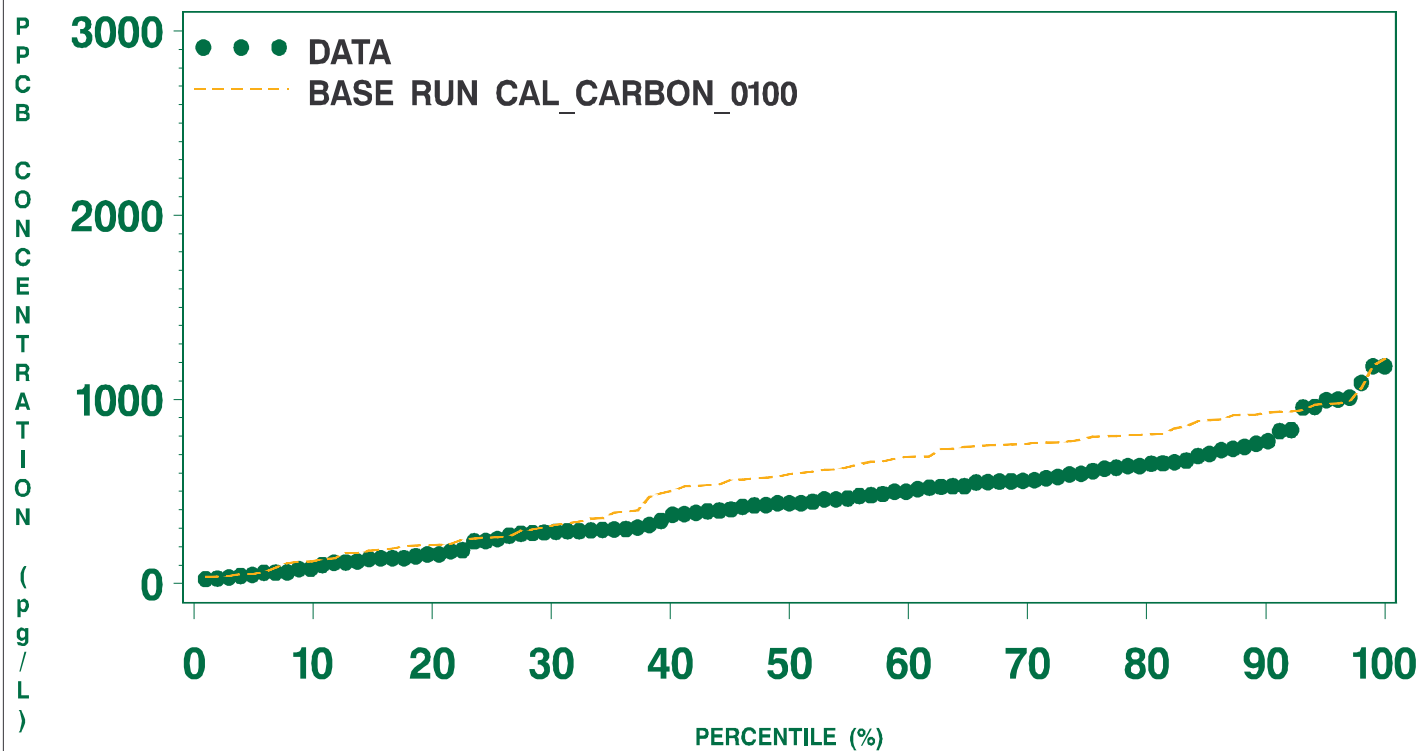
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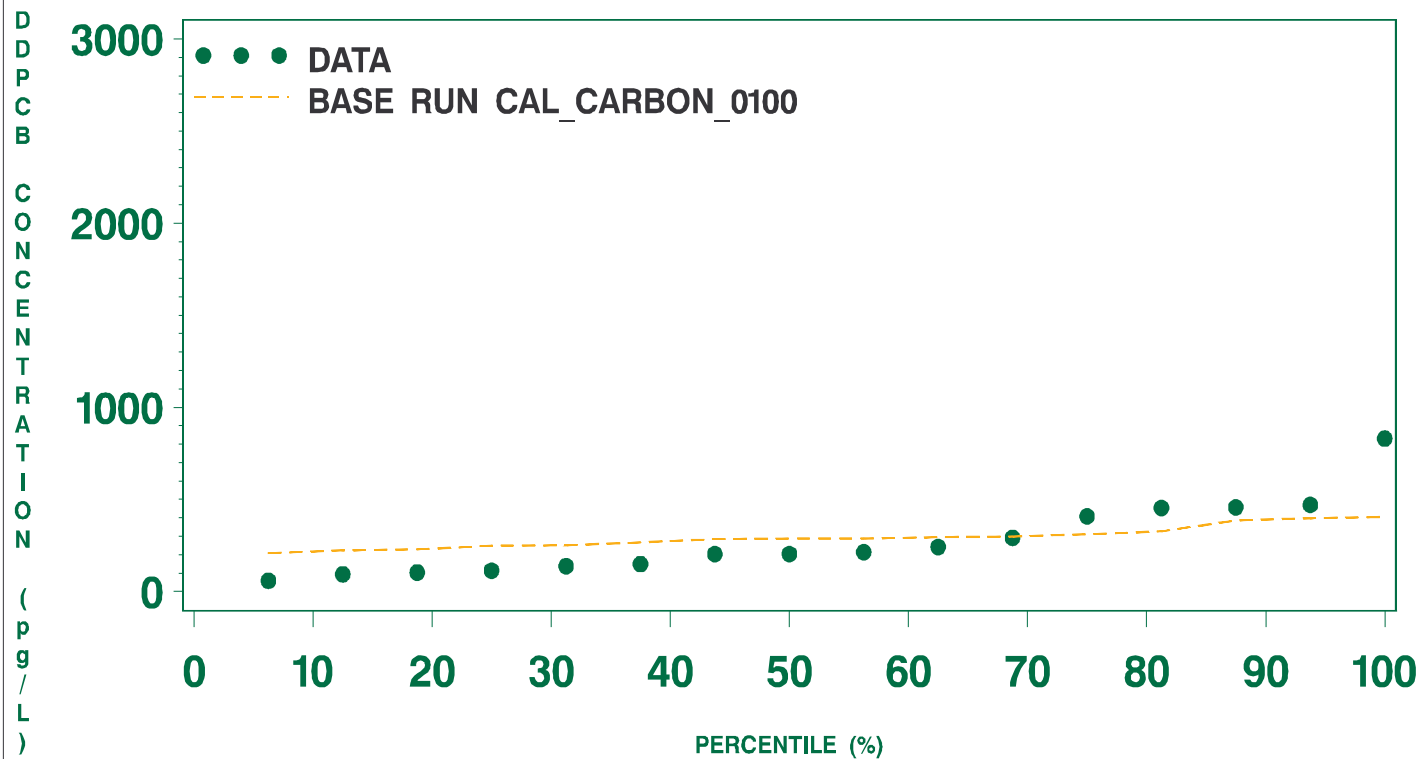
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CUMULATIVE FREQUENCY DISTRIBUTION OF PPCB FOR ALL ZONES



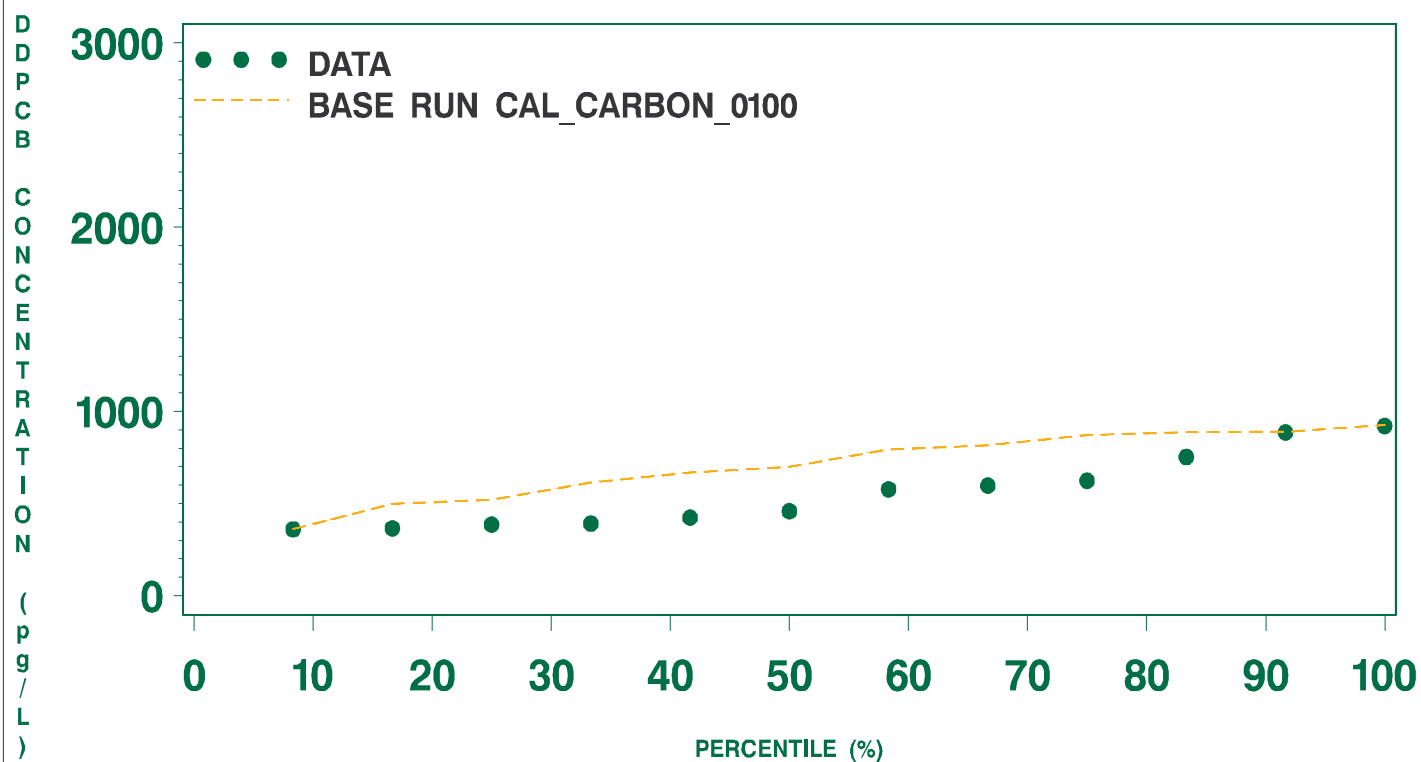
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CUMULATIVE FREQUENCY DISTRIBUTION OF DDPCB FOR ZONE 2



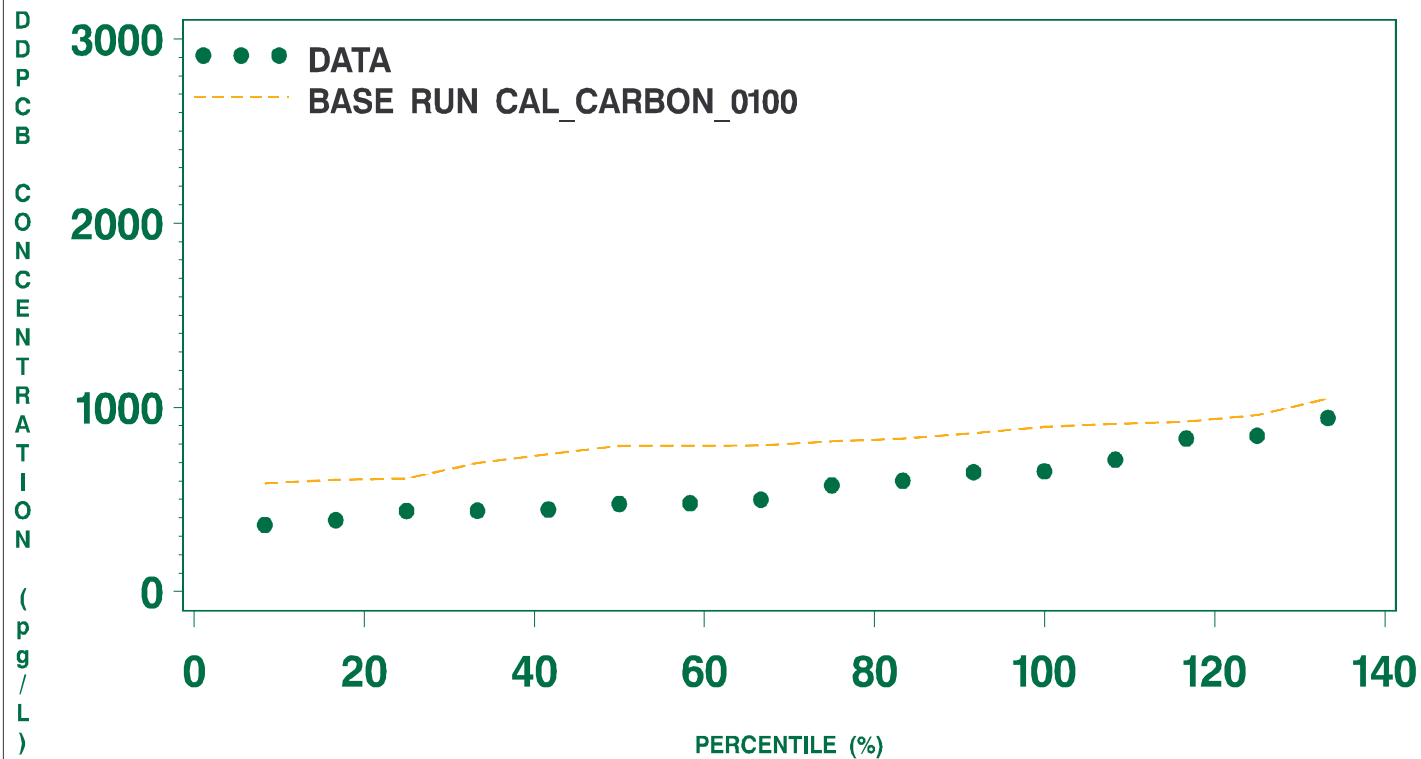
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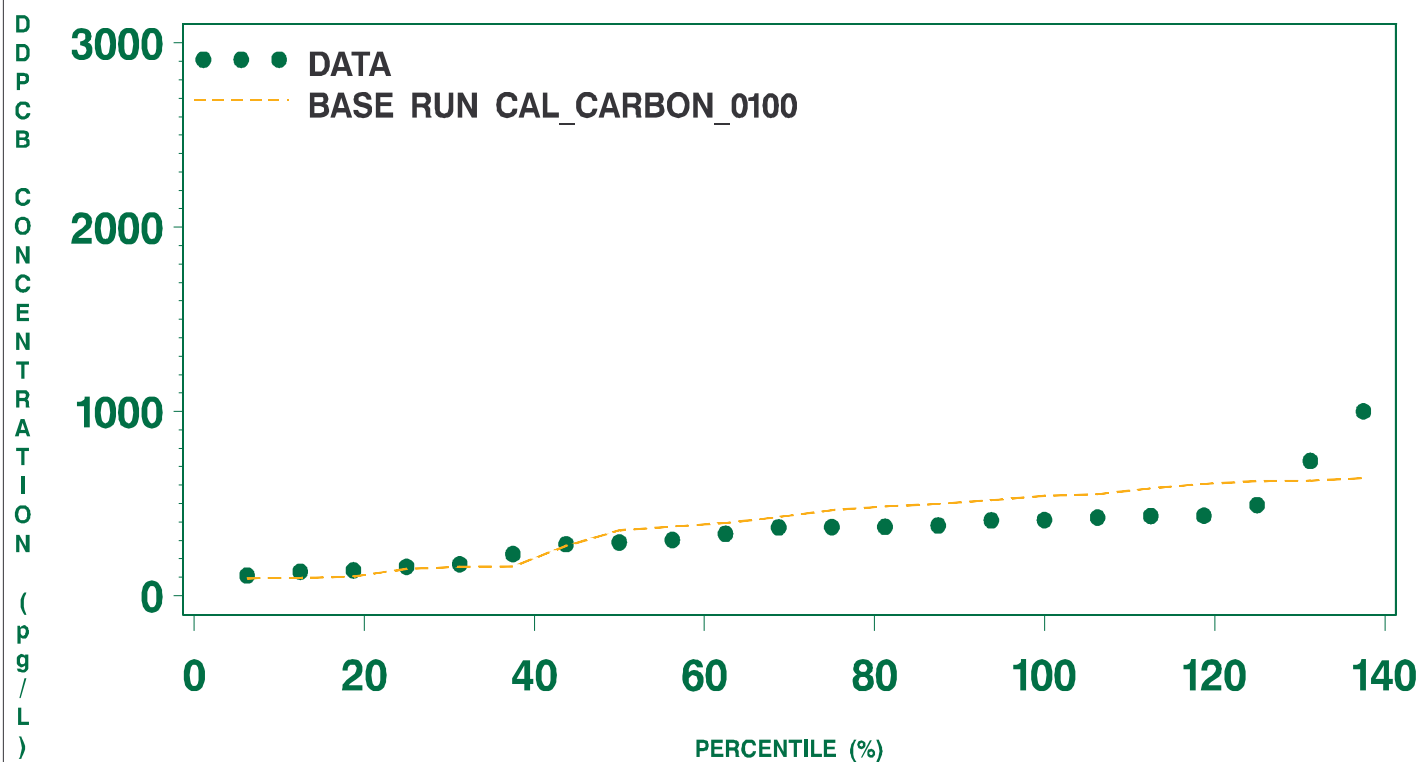
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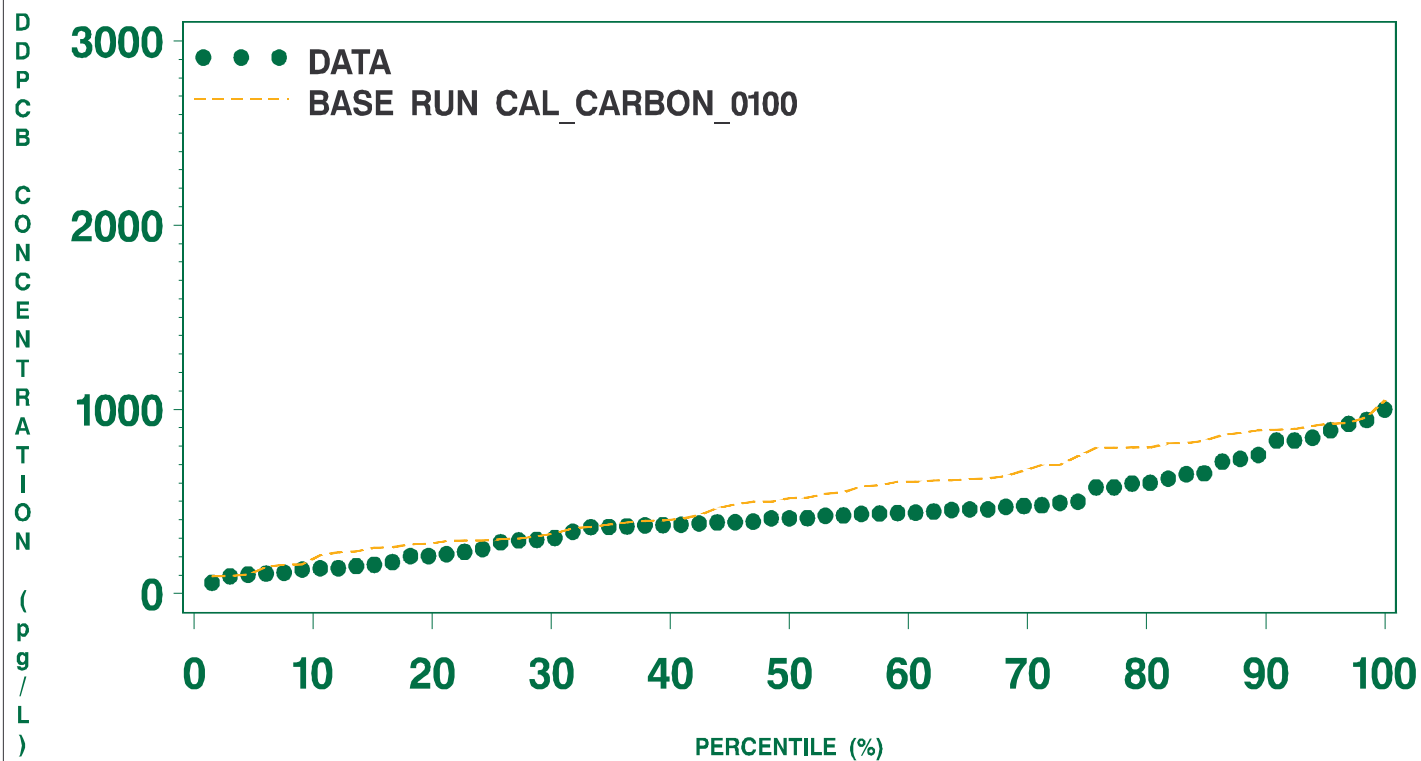
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CUMULATIVE FREQUENCY DISTRIBUTION OF DDPCB FOR ZONE 5



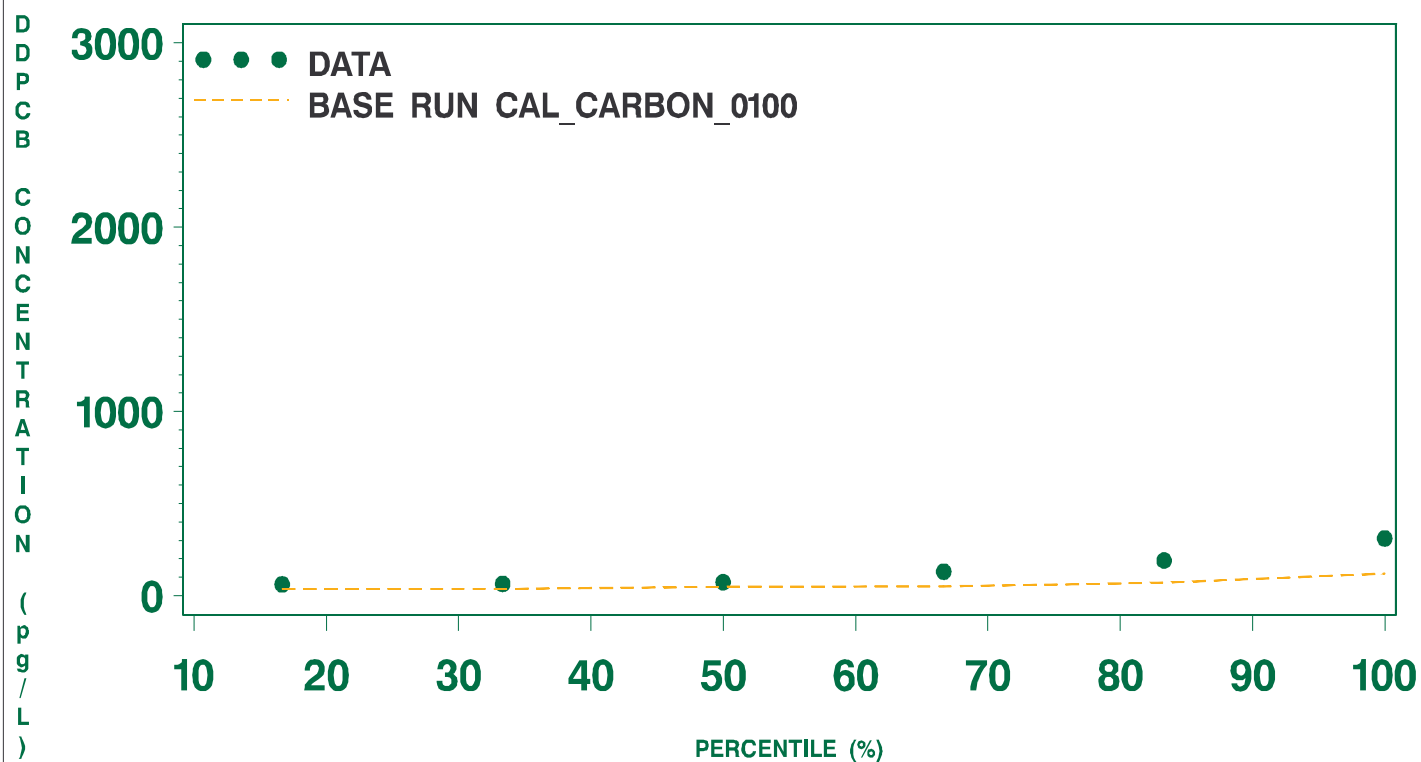
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CUMULATIVE FREQUENCY DISTRIBUTION OF DDPCB FOR ZONES 2-5



01AUG03 16:52 FILE NUMBER CAL CARBON_0100

CUMULATIVE FREQUENCY DISTRIBUTION OF DDPCB FOR ZONE 6



01AUG03 16:52 FILE NUMBER CAL CARBON_0100

CUMULATIVE FREQUENCY DISTRIBUTION OF DDPCB FOR ALL ZONES

